

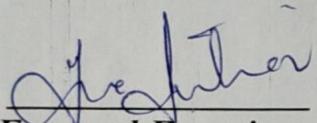
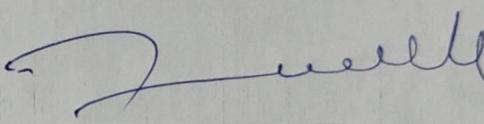
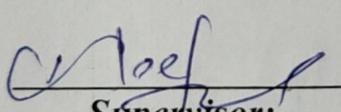
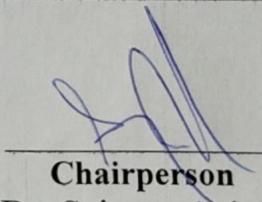
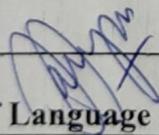
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Title of the Thesis: **"Re-visiting the Horrors of Body-Toxin Assemblages in the Selected Texts"**

Registration No: **724-FLL/MSENG/F22**

Accepted by the Department of English, Faculty of Languages & Literature, International Islamic University, Islamabad, in partial fulfillment of the requirements for the MS degree in English.

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**Re-visiting the Horrors of Body-Toxin Assemblages in the Selected
Texts**

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT
FOR THE DEGREE OF MASTER OF PHILOSOPHY IN ENGLISH

To

Department of English (F.C)

Faculty of Languages and Literature

INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD

2025

DECLARATION

I, Afifa Tahir, hereby declare that this thesis titled “Revisiting the Horrors of Body-Toxin Assemblages in the Selected Texts” submitted in partial fulfilment of MS degree is my original work. All the theoretical, critical, and textual sources used in the thesis have been duly cited and acknowledged. I also assure that this work will not be submitted by me in the future in order to obtain any other degree from this or any other institution.

Dated: May 06, 2025

Afifa Tahir

ACKNOWLEDGEMENTS

First and foremost, I would like to express my sincere gratitude to my research supervisor and a very dear teacher Dr. Neelam Jabeen for her unwavering support, genuine concern, and scholarly advice through the course of this thesis. Her continuous guidance and timely correspondence has been significant in navigating the direction of my research.

I would also like to heartily thank all my professors at International Islamic University, Islamabad, in whose mentorship, I have been able to cultivate my academic capabilities. I will always look up to them for inspiration. Special thanks to Dr. Amal Sayyid whose exceptional teaching of Literary Critical Theories has helped me develop the passion for the subject.

I would also like to thank my best friend Javeria Hafeez for the love and warmth she so generously shared throughout my university days. Her understanding and sage advice has helped me through tough bits, and I will never cease to be grateful for her presence. A special token of thanks to my dear friends Hadia Waqar and Shamza Maryyam for their cheerful conversations and emotional support across my MS journey.

Lastly, I would like to especially thank my mother for her love, prayers, and generosity of spirit. Her sacrifices and constant belief in my potential gives me the strength to move forward. I would also like to thank my beautiful sisters Rimsha, Hania, and Eshal for the joys they bring to my life.

This work stands as a testament to the love and support of all these people.

DEDICATION

In the loving memory of Papa, always present, never gone

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ABSTRACT

By foregrounding the afterlife of toxic waste, in this study, I look into the ways in which toxic waste is not an inert or passive substance; rather it is lively and agentic as it actualizes its agency by making complex body-toxin assemblages with human and non-human bodies. I also probe into the spatial capitalist politics of toxic waste to argue that industrial plantations and dumping of its toxic waste is a highly political issue, motivated by an exploitative capitalist system. Situating my argument in Indra Sinha's *Animal's People*, and Amitav Ghosh's *Gun Island*, I build my theoretical framework around Karen Barad's theorization of Agential Realism. Barad emphasizes the notion of "intra-action" in place of the general interaction in which identities arise as a result of entanglements between objects. I use this concept along with Deleuze and Guattari's idea of assemblages to show how toxic waste forms complex connections with human/animal bodies. I also use Rob Nixon's idea of "slow violence" to highlight the capitalist politics of marginalization of certain bodies to show how toxic bodies become material texts that tell the stories of social choices, political decisions and environmental pollution. This research opens up alternative avenues to configure our identity and understanding of reality as a result of material intra-actions. It may develop an understanding that we are all endlessly entangled, intra-active, and emerging agencies participating in the world's possibilities of becoming. It also has the potential to subvert binary thinking by claiming that agency is not only the human privilege, but matter is also animate.

Chapter 1

Introduction and Background of the Study

My research aims to explore the agentic potential of toxic waste by challenging the dominant anthropocentric conception of waste as inert and passive. By foregrounding the agency of toxic waste with the help of textual analysis of the selected novels *Animal's People* and *Gun Island*, my study brings in a post-humanist account of agency, where agency is no longer seen as only a human privilege, rather it is viewed as evenly distributed across human and non-human entities. Several waste studies conducted over the past few decades have rendered waste a central role in the contemporary ecocritical discourse, prompting questions about its material agency and its role in shaping human and nonhuman lives. Against this backdrop, my research offers a viable platform to interrogate the socio-political dynamics that govern environmental exposure and its uneven distribution across class, caste, and geopolitical context.

In a fast capitalist system, once dumped or discarded, waste ceases to exist. This conception of waste as negligible and unimportant is an outcome of an anthropocentric and exploitative capitalist system (i.e. out of sight, out of mind) where matter (i.e. waste) is seen as inert and passive, devoid of any agentic power. In this research, I critique the anthropocentric conception of waste as inconsequential by exploring the afterlife of toxic waste. I draw upon Karen Barad's concept of Agential Realism to highlight the ways in which toxic waste actualizes its agency by making connections with the human and animal body. While theorizing Agential Realism, Barad argues that the things do not "preexist;" they are brought about through agency and become "determinately bounded" and endowed

with properties within “phenomena” (150). Agential realism refers to matter not as a fixed substance but accounts for its intra-active becoming (it is a substance in its intra-activity); not a noun but a verb (“not a thing but a doing”) - a coagulating of agency (151). Barad postulates that it is not possible to divorce human and non-human agencies from each other, since they are intertwined through their perennial intra-actions.

Like Barad’s agential realism, Alaimo’s concept of trans-corporeality proclaims for a mutable human body in an unpredictable relationship with nonhuman matter. According to Alaimo, it is impossible to detach the human body from the environment in which it exists. The nonhuman world of matter transgresses across the body’s penetrable boundaries in a mutual exchange in which the human and nonhuman shape and influence each other (Alaimo 2010). At the core of these arguments lies the conception that we are all changing constantly, interminably intertwined, intra-active, and producing agencies partaking in the universe’s unending prospects of becoming (Fourqurean 4).

Acknowledging Barad’s idea of “intra-action” and Alaimo’s concept of trans-corporeality, I argue that every human-made mixture or compound (in this case toxic waste) acts and produces a range of unforeseen tangible effects in the environment. I explore the afterlife of toxic industrial waste by tracing its path from production to consumption to dumping and entering into the human/animal bodies, forming assemblages and eventually altering their natures and identities. I connect the idea of spatial politics of environmental toxicity and disparity of environmental hazards to explore the way capitalist corporations plant industries and dump toxic waste in the areas where marginalized communities live. The exposure to toxic waste by the corporate enterprises that align with

the profits of the global elite not only leads to the “slow violence” of certain communities, but the toxic waste exerts its agency by making complex assemblages with both human/non-human bodies. In this way, waste ceases to be a mere pile of dead matter, but can be seen as a collaborator and actant, helping deconstruct the notion of human as the sole possessor of agency. I refer to Rob Nixon’s book *Slow Violence and Environmentalism of the Poor* in which he contends that the people who experience resource constraints are the primary victims of slow violence (17). The communities in the selected texts i.e. *Gun Island*, and *Animal’s People* are the victims of the slow violence caused by the exposure to toxic industrial waste. For example, Ghosh’s *Gun Island* explores the impacts of industrial waste discharges into the rivers neighboring the Sundarbans, where a large population of Dalits and migrant Muslims is settled. Similarly, *Animal’s People* is nestled within the persisting ecological destruction stemming from an explosion in a factory in a fictional city Khaufpur, replicated from Bhopal, India.

Sinha sheds light on the lives of the nameless poor and marginalized sufferers of an anthropogenic ecological disaster. Referring to Gilles Deleuze and Felix Guattari’s concept of assemblages, I argue that toxic waste forms assemblages with human and non-human bodies and actualizes its agentic power through the body of humans and animals. For Deleuze and Guattari, the assemblages produce unforeseen connections, recombinations and heterogeneities of knowledge and action as they establish, extend and confront with other assemblages (1987). According to them, assemblages are always disintegrating, establishing new alliances, being restructured and restored— a fluid dynamics stemming from which social realities generate (1987). I connect this idea with Alaimo’s trans-corporeality to argue that the non-human world of matter (toxic waste here)

travels across the body's permeable boundaries, and thus alters the nature of the body (both human and animal). I also use Sarah Jacquette Ray's idea of "the ecological other"¹ to show that when hazardous material agencies (such as toxic waste, chemicals) diffuse into bodies, then the altered bodies become material texts that tell the stories of societal preferences, political decisions and environmental pollution. For example, the selected texts convincingly depict the ways in which toxic bodies become ecological *others* when they experience contaminants and other profound alien agencies react with bodies in unforeseeable ways.

1.1 Statement of the Problem

Far from being a managerial problem, industrial plantations and dumping of its toxic waste is a highly political issue, motivated by an exploitative capitalist system. This spatial politics of toxic waste not only marginalizes certain communities but waste acts as an assemblage and combines different processes from capitalism, urbanization, and consumerism to caste biases. In this way, waste ceases to be a mere pile of dead matter. Rather it acts back as a sociopolitical agent that reconfigures human/non-human relations by developing a body/toxin assemblage. Situating my argument in Indira Sinha's *Animal's People*, and Amitav Ghosh's *Gun Island*, I argue that toxic waste actualizes its agentic power by developing complex assemblages with human and animal bodies. I show how do the life patterns of the characters (human and animal) in *Animal's People*, and *Gun Island* alter after coming in contact with the toxic waste, complicating the human and non-human

¹ I substitute Ray's socially excluded 'disabled bodies' as the ecological other with the concept of 'toxic bodies' to underpin the material exchange between the body and the environment from a material-ecocritical perspective.

boundaries. I foreground my argument in the debates surrounding the capitalist spatial politics of dominant groups to argue that the toxic human and animal bodies become the palimpsest of social and political decisions.

1.2 Research Objectives

1. To investigate the ways in which body/toxin assemblage transforms human/non-human relations.
2. To explore the spatial capitalist politics of dumping industrial waste which leads to political, social and ecological marginalization of certain communities.

1.3 Research Questions

1. In what ways does the toxic waste form assemblage with human/non-human bodies in the selected texts?
2. How do the selected texts uncover the capitalist politics of planting industries and subsequent dumping of toxic waste in the settlements of marginalized communities?

1.4 Methodology

I conduct qualitative research through a rigorous textual dissection of the selected novels; *Animal's People* by Indira Sinha, and *Gun Island* by Amitav Ghosh. I support my argument through Karen Barad's theorization of Agential Realism from the book *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* and Stacy Alaimo's concept of Trans-corporeality from the book *Bodily Natures: Science, Environment, and the Material Self*. Barad emphasizes the notion of "intra-action" in place of the general interaction in which identities arise as a result of entanglements between objects. Similarly, by foregrounding the movement through bodies, Alaimo's trans-

corporeality uncovers the transitions and networks between multiple bodily natures. I use these concepts along with Deleuze and Guattari's idea of assemblages from the book *Anti-Oedipus: Capitalism and Schizophrenia*, to show how toxic waste forms complex connections with human/animal bodies. I also use Rob Nixon's idea of "slow violence" to highlight the capitalist politics of marginalization of certain bodies, and Sarah Jacquette Ray's concept of "the ecological other" to show how toxic bodies become material texts that tell the stories of social choices, political decisions and environmental pollution. All the selected texts show the after-effects of dumping toxic waste in ecologically marginalized spaces which not only leads to slow violence of certain communities, but also transfigures human and non-human living patterns by forming complex assemblages with their bodies. Human/non-human encounters with toxic waste, chemical pesticides and other innumerable agents result in a number of illnesses and environmental catastrophes debunking the anthropocentric belief that waste is inconsequential and inert.

1.5 Significance of the Study

By considering waste as an actant and collaborator rather than inert and passive, this research would contest the anthropocentric conception that our correlation with the material world has no significant ramifications for life in general. It could also aid in embedding within the framework of structuring the afterlife of all things such as waste, then we ourselves create and dismiss into the physical world. It may create future potentials to resist and fight the throwaway culture which leads to accumulation and multiplication of waste. Moreover, by taking into account the new materialist insights, this research will offer a new way to look at the post-humanist conception of manifestation and material entwinement of human and nonhuman material agencies through waste.

1.6 Chapter Division

My research is based on five chapters:

1. Chapter 1 is titled “Introduction”, representing the core of the whole research.
2. Chapter 2 is titled “Interplay of Performativity of Waste and Capitalist Politics; A Review of Related Literature” which discusses the theoretical framework upon which the analytical framework is built.
3. Chapter 3 “Body/Toxin Assemblages and Nonhuman Agencies” focuses on the afterlife of waste; what trajectory does the toxic waste follows after it is dumped and how does it form assemblages with human/animal bodies thus transfiguring their living patterns. Examples from the selected texts are cited to support the argument.
4. Chapter 4 is titled “The Capitalist Spatial Politics of Toxic Waste” and deals with spatial politics of environmental toxicity and unequal distribution of environmental risks. I use Ghosh’s *Gun Island* to explore the impacts of industrial waste into the rivers neighboring the Sundarbans, and Sinha’s *Animal’s People* to explore the persistent environmental crises caused by a factory explosion in a fictional city Khaufpur, designed after Bhopal, India to analyze the ways in which big corporate powers risk the lives of innocent people due to their negligence and greed.
5. Chapter 5 focuses on the conclusion and findings of the research. It provides answer to the research questions.

Chapter 2

Interplay of Performativity of Waste and Capitalist Politics: A Review of Related Literature

In this research, I critique the anthropocentric conception of waste as inconsequential by exploring the afterlife of toxic waste. By taking into account Karen Barad's idea of "intra-action" and Stacy Alaimo's trans-corporeality, I argue that every human-made mixture or compound (in this case toxic waste) acts and produces a variety of unintended real physical consequences in the environment. I aim to connect the idea of spatial politics of environmental toxicity and unequal distribution of environmental risks to explore the way capitalist corporations plant industries and dump toxic waste in the areas where marginalized communities live. The exposure to toxic waste by the corporate projects that serves the interests of a globalized ruling class not only leads to the "slow violence" of certain communities, but the toxic waste exerts its agency by making complex assemblages with both human/non-human bodies. In this way, waste ceases to be a mere pile of dead matter, but can be seen as a collaborator and actant, helping deconstruct the notion of human as the sole possessor of agency.

The conceptualization of waste as an actant examines the conventional perception of waste as passive and inert; rather depicting it as an active contributor in shaping socio-ecological exchanges. New materialist insights endow matter with agency; consequently waste emerges as a vital force that influences and is influenced by its interactions with human societies and ecosystems. By investigating the intricacy of waste with the apparatuses of power, capitalism, and imperialism, scholars explore the unequal

distribution of waste distribution, environmental injustices, and the politics of waste management and disposal.

This chapter outlines the major ideas that collectively uncover my research's conceptual framework that revolves around the conceptualization of waste as an actant and assemblage, which has the agency and power to make body-toxin assemblages within both human and non-human bodies, thereby altering their body chemistry. This Literature Review moves on to highlight how the major concepts related to my study i.e. New Materialism, Postcolonial Ecocriticism, Waste Management and Urban Politics etc. have evolved over the years, and the contribution that my research offers within this field. Through interdisciplinary methodologies and critical engagement with contemporary issues, this literature review seeks to deepen the understanding of the complex interplay between waste, colonial legacies, environmental governance, and health concerns. Divided into the following main sections, it informs the readers of the conceptual background of my research, and helps me in identifying the gap my research aims to address:

1. Analysing the evolution of New Materialist perspectives within mainstream ecocriticism.
2. Breaking down the implications of waste matter as vital and agentic.
3. Interplay of waste management, urban politics, and capitalism.
4. Tracing the evolution of Postcolonial Ecocriticism as a separate field within the debates of Ecological Imperialism and Environmental Justice perspectives.

2.1 New-Materialism; Waste as Vital and Active

The idea of matter as active and vital has demonstrated a turn away from conventional Cartesian dualism toward a more egalitarian and communal understandings of the material world. Recently, new materialist prospects have gained ground within philosophy, cultural theory, and feminist thought, confronting anthropocentric and dualistic premises of matter. Scholars such as Karen Barad, Jane Bennett, and Donna Haraway have examined the ways in which matter actively takes part in the co-constitution of human and non-human worlds, framing political, social, and ecological relations. New materialism advocates for a non-anthropocentric realism, implying a shift from epistemology to ontology. It also realizes the existence of matter's essential activity (Gamble et. al 118). The common inducement for this shift towards materialism is taken as a *neglect* or *diminishment* of matter in the dominant Euro-Western tradition as an inert and passive mass inherently deprived of meaning (118).

Significantly, the most paramount type of new materialism is vital new materialism. Vital new materialism came to the fore through Gilles Deleuze's reading of Baruch Spinoza's (and to a lesser degree Leibniz's) theory of conatus. Deleuze ventured to consider Spinoza and Leibniz in the first place as Spinoza and Leibniz viewed that all of nature was silhouetted predominantly by an essential and vital power or force (119). Bacon, Descartes, Hobbes, and Newton viewed this vital energy as something that is detached from mind or matter. Therefore, they viewed it as extrinsic, understanding it in the form of God or transcendent natural laws. However, for Spinoza and Leibniz, force remains intrinsic to matter as they believe that matter is nothing if not an exercise of *force itself* (119).

Vital new materialists have drawn upon on this practice in their pursuit to overturn the traditional materialist exploration of matter as a passive object of outward forces (natural or divine). For example, Bennett as a post-Deleuzian scholar, one of the most cited advocate of this view, ardently emphasizes this difference. She expresses that what she is viewing as impersonal affect or material vibrancy is not a spiritual affect or “life force” added to the matter housing it. Her vitalism is not of a conventional sense; rather she equates affect with materiality instead of viewing it as a separate force, one that can enter and animate a physical body (Bennett, xiii). For Bennet, therefore, vital matter is neither predetermined, transcendental, naturalistic, epistemological nor it is structured by human mind, language, or social structures, but it is intrinsically creative in itself (Gamble et. al 120).

Similarly, it can be pointed out that new materialisms account for a shift from epistemology to ontology. However, all non-performative theories take ontology and epistemology as independently of one another. In contrast, in a performative approach, ontology and epistemology are inherently co-involved and mutually structured (122). For example, Barad puts forth a foundation for such a performative account through the theorization of “intra-activity.” Inspired by Neil Bohr’s experiment in quantum physics of the famous double-slit experiments (i.e. due to the experimental alignment, light emerges either as a wave or particle, irrespective of their mutually exclusive characteristics), Barad draws upon the foundation to posit that entities do not simply exist without the particular, physical measuring devices that demonstrates them one way to the exclusion of others. Intrinsically light, like all matter, is *indeterminate*. And therefore, what light *is*, as a

definitive substance, does not thoroughly precede – and is not completely separable from – the physical, material apparatus used to observe it (122).

Through a meticulous and profound observation of this experiment, Barad puts forward an “onto-epistemological” (43-44) discourse of reality which she names as “agential realism.” It is a shift into an explicitly “performative” (*Ibid* 134-137) and relational materialism in which matter merely is what function it performs and how it moves (123). This account brings to the fore an onto-epistemological narrative of how matter and meanings correlate, and how it can be used to establish alternative narratives of human and non-human agency and performativity (123). As the epistemologies of superiority are disrupted (*Code 4*), agency no more remains a privilege of the human alone needing a “new ontology, epistemology and ethics” so that their “fundamental inseparability” (*Meeting the Universe* 25-26) demands to be reconfigured in terms of the agentive enactments of non-human phenomena, along with the material-discursive affairs underpinning these phenomena. Material-discursive entanglement or “intra-action” is a term exercised by Barad to signify the “mutual constitution” of things and agentic forces of observation within phenomena (*Meeting the Universe* 197-198). This signifies that rather than a priori construction of objects, they are co-constructed as an outcome of liaisons that establish material and semiotic agencies, which can be interpreted. In this respect, matter and non-matter, human and non-human, nature and culture, are by no means incompatible. Rather they are constantly “becoming” that is an always already an “ongoing historicity” (*Meeting the Universe* 151).

Likewise, Haraway in *Simians, Cyborgs and Women: The Reinvention of Nature* theorizes that structures and meanings of the world are not “still”, or passively awaiting human interpretation; the world is not “a raw material for humanization” (198). As the studies regarding cyborgs, science, and AI are generally changing the universal concepts of nature and culture, her work provides a feminist foundation of the conception of women’s agency. Her idea of “objects as actors” (Haraway 197) integrates with Barad’s agential realism, which serves as an epistemological-ontological-ethical substructure that provides awareness about the place of human and non-human, material and discursive, and natural and cultural features in scientific and other socio-material protocols (Barad 26). Haraway’s agential realism contributes in a “posthumanist account” (32) that questions all essentialist categories like nature, culture, human, and non-human, introspecting different ways through which these “differential boundaries” are subject to simultaneous processes of “stabiliza[tion] and destabiliza[tion]” (“Posthumanist Performativity” 808) generating conceptual shifts. By foregrounding the engagement of non-human actors within everyday “natural-cultural practices” (Meeting the Universe 32), she expounds reality as both discursive and material where all entities are constantly moving.

2.2 Performativity of Waste: Waste as an Actant

In this thesis, the focus of study is toxic waste. It is commonly viewed as a passive and inert by-product of human activity. However, over the last few decades, it has been re-analyzed within the theoretical framework of new materialism (i.e. assemblages etc). In their theory of assemblages, Deleuze and Guattari maintain that in the complex frameworks, matter or entities as participants are not pre-determined; rather it is a performance in which the entities act through unintended and unforeseen activities with

other entities. However, Deleuze-Guattarian assemblage can be extended in three different ways. Firstly, by taking assemblages as an expedient of thinking; it becomes a ‘rhizomatic or nomadic thought’ establishing ‘linkages or connections between different systems of knowledge-formation’ (Kaufman 5); thereby re-defining the methods in which we perceive and make sense of the world. Secondly, assemblages imply how individuals (humans, for example) and objects are recognized in relation to the *intense environment* in which they materialize (DeLanda 63).

For Deleuze and Guattari, the defining property of the assemblage is its tetravalency. Procured from chemistry and biology, valency is the combining power of an element or molecule; in assemblages, it connotes four means of combining: mechanic content and collective manifestation, territoriality, and deterritorialization (503-5). However, the one defining variation of the Deleuze-Guattarian assemblage is that its purpose is not a totalization, a categorical marking of boundaries, or a final theory of everything. It is instead an augmentation of possibilities, a formulation of new practices and new outlooks, an effective ‘entertainment’ of objects, emotions, concepts, and postulations that were not formerly available to us (Shaviro 148–9).

In recent years, scholars have employed this structure to the study of waste, proposing waste as an assemblage that is constituted of various elements, entanglements, and processes. Underlying the concept of waste as an assemblage lies the understanding of waste as a heterogeneous and multifarious phenomenon that constitutes more than just discarded objects. Tracing the discourses of actor-network theory and new materialism, scholars foreground the various components and correlations that gauge waste

assemblages, including material objects, frameworks, approaches, discourses, and human actions. For instance, Bennet and Joyce (2017) argue that waste assemblages encompass both human and non-human, such as waste collectors, waste management strategies, recycling facilities, and discourses on waste management, which interconnect and consolidate to generate particular waste environments and socio-ecological organizations.

By considering waste as an assemblage, theorists transcend the simplistic interpretations of waste as a static, secluded entity and rather foreground its relationality and requisite within socio-ecological apparatuses. By the analyses of waste assemblages in urban settings, industrial environments, and worldwide distribution channels, researchers present the complex correlations and associations that structure waste production, distribution, and disposal. For example, Gabrys (2011) explores e-waste assemblages, uncovering the global dissemination of electronic devices, the wrenching out of rare earth minerals, the labor actions of recycling workers, and the debates of technological advancements that advocate present e-waste regimes. Additionally, the idea of waste as an assemblage invites critical inspection of the power dynamics, inequalities, and environmental injustices inherent to the waste systems. Scholars challenge the ways in which waste assemblages propagate and recentralize social hierarchies structured on race, class, gender, and geography, while also underscoring the creative techniques of resistance and adaptation employed by disempowered communities. Hawkins and Mueke (2017), for instance, examine waste assemblages in indigenous communities, investigating how colonial legacies, deprivation, and environmental racism traverse to generate uneven waste landscapes and disparate manifestations to the environmental problems.

Matter-of-factly, the acknowledgement of waste as an assemblage covers a range of strategies, including qualitative research techniques, critical discourse analysis, and participatory action research. By interdisciplinary cooperation and interconnected scholarship, scholars establish various methodologies to unfold the complex inclinations of waste and to generate more just and sustainable strategies to waste management and environmental governance. Ultimately, the consideration of waste as an assemblage provides a dynamic framework for the comprehension of the complex relationships between human communities and the material world. By underpinning the heterogeneous and correlational nature of waste phenomena, researchers engender tireless efforts to explore the social, cultural, and environmental aspects of waste and to imagine more holistic and egalitarian futures for all.

2.3 Waste Management, Urban Politics and Health Concerns

Over the last few decades, an emanating focus on waste in academic circles has given rise to new concepts in the study of waste: hazardous waste trade; waste management practices and urban studies; waste-related infrastructure and politics in the developing countries; treatment of municipal solid waste; growing heaps of e-waste on local dumpsites etc. The variety of studies on waste put forth a number of concepts such as waste as a threat, risk or hazard; waste management; waste as a commodity, resource or archive; waste as dirty, undesirable, and filthy; waste as actant etc.

However, philosophers and scholars studying waste have attentively turned to the ‘material’- the daily experience of inhabiting and living with the waste or the social, political, and economic relations affected by the waste etc. Sarah A. Moore points out that

as an object of study, waste itself might be thought of as a parallax² object which interrupts the smooth running of things (Zízék 17). The new ideas and concepts associated with waste point out to what Zízék terms as a ‘parallax view.’ It foregrounds waste, either because of its essential qualities like risk, hazard, and filth or due to its ambiguity as an object out of place or disorder, as a substance which unsettles and suspends socio-political and temporal-spatial normative practices. Moreover, she signifies her idea on two questions; what are the ways in which waste is defines, and what are the mechanisms or frameworks in which waste is connected to society. She also accentuates the political properties of parallax objects, and argues that the disruption caused by waste and other parallax objects signify what Isin calls “[b]eing political” – those “moment[s] when the naturalness of the dominant virtues” is challenged and their “arbitrariness revealed” (Isin 275).

Scholars have also studied the unjust and unequal distribution of environmental and public health hazards by taking into account the uneven dumping of toxic materials such as human/animal waste in the economically impoverished marginalized spaces. The unequal proliferation of toxic risks is inversely proportional to the accumulation of power both political and economic between communities (Krieg 5). For example, the proof of similar patterns is the superfluity of toxic risks and other hazards in economically marginalized or minority communities— a phenomenon often termed as environmental classism and environmental racism³ (5). Moreover, studies also suggest that marginalized

² Parallax can be defined as the apparent displacement of an object, caused by a change in observational position.

³ Environmental racism denotes the inequitable burden of environmental risks and harms, wherein the marginalized communities such as communities of color and economically disadvantaged groups bear the disproportionate burden of ecological hazards.

communities are sometimes the deliberate target of toxic waste disposal, it can also be signified that the majority of such actions are a product of a more structural and strategic politics (5).

Additionally, waste studies are also proposed on the hypothesis that waste is not inherently dirty or inconsequential, rather is a medium in which social divisions, boundaries and politics takes place. For instance, Mary Douglas in *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (2002) lays the foundation of waste studies by stating waste as a matter out of place. By highlighting the social and political function of waste, Douglas argues to view a thing as disorderly, dirty or polluted implies that we are determining the dominant power structures (such as state, religion, science, society etc.) that underline the individual, social, and cultural boundaries. Her analysis is used to analyze the processes through which classifications between value/non-value, norm/exception, structure/deviation, nature/culture, and object/subject are formed.

For example, in the context of Indian cities, waste is seen as a category that aggravates existing class divisions, reifies caste systems and structures, and constitutes a distinct postcolonial urbanism. Unethical and poorly organized waste management measures also give to many environmental problems and health risks. The dump sites that are used to dispose of waste and other undesirable items affect the air quality, waste, and land. Majority of the dumpsites are located near markets, commercial areas, residential areas, and roadsides. Poor management of waste thus gives rise to unpleasant odor. The improper arrangement of waste in landfills causes groundwater pollution as toxins infiltrate into the earth through precipitation. When the waste in landfills decays, certain chemicals

discharge into the soil such as chlorides and heavy metals, which pass through rainfall and end up in our drinking water.

Many studies have also been carried out to track the living conditions of people living near landfill sites. For instance, Vrijheid (2000) argues that toxic waste disposal can be hazardous to the communities and environment live near such dumpsites. Kampa and Castanas (2007) add that industrial waste can also be harmful to people who come in contact with it because of the sudden discharge of toxic chemicals into the atmosphere, raising concerns for the health of the people. Therefore, the complex connections between the environment and health have been generally stressed, and studied by many researchers.

2.4 Ecological Imperialism and Environmental Justice Perspectives: Trends and Debates in Postcolonial Ecocriticism

Postcolonial Ecocriticism is an emerging discipline in the field of literature and philosophy which connects the areas of postcolonial studies and ecocriticism. Over the last few years, scholars have increasingly turned their attention towards the effects of colonialism, imperialism, neoliberal politics, and capitalism on the environmental degradation in the developing world, and how the literature from the postcolonial world represents and engages with these ecological issues. In the introduction of *Postcolonial Environments*, Upmanyu Pablo Mukherjee analyses the ways in which postcolonial studies and environmental discourses overlap. He states that the conventional postcolonial analyses frequently neglects the environmental injustices driven by colonial and dominant groups. Mukherjee tends to bridge the gap between the two apparently distinct disciplines to highlight the ways in which environmental issues are deeply seeped in the histories of

colonization, globalization, and neoliberalism. He seeks to foster a more nuanced and inclusive understanding of environmental justice by foregrounding the voices of marginalized communities affected by environmental injustices.

In such a way, postcolonial ecocriticism has the potential to offer a rich framework for exploring the relationship between colonial histories of exploitation and violence, environmental issues, and neoliberalism and capitalist politics. As the scholars examine the concerns surrounding exploitation, resistance, hybridity, and globalization, they tend to deepen our understanding of the complex interplay of the politics of power. For example, Mukherjee introduces the concept of 'Green Postcolonialism' as a concept to apprehend the environmental aspects of colonial and postcolonial experiences. This framework seeks to accentuate the exigency to explore the ways colonialism has configured ecological relations and heightened environmental inequalities.

By drawing upon several eco-critics and postcolonial critics, Mukherjee puts forward a comprehensive framework of postcolonial ecocriticism. He discusses Rob Nixon's concept of 'slow violence' which indicates the slow, gradual, and continuous forms of environmental degradation that affect the marginalized communities, especially of Global South. Nixon proclaims that such violence in its various forms is often not counted in conventional postcolonial narratives as it is more inclined towards the sudden and dramatic events. Mukherjee employs Nixon's framework of slow violence to underscore the importance of recognizing long-term environmental effects of colonialism and globalization.

Mukherjee also considers Graham Huggan's critique of eco-tourism and the commercialization of nature in postcolonial contexts. He contends that eco-tourism fortifies existing power dynamics and strengthens environmental inequalities in formerly colonized regions. He argues that the 'green' cultural studies in postcolonial framework signifies that it is ludicrous to identify current forms of imperialism and colonialism without taking into account the broad spectrum of environmental degradation they exacerbate (702). To make it plain, all colonial and imperial issues are inherently also environmental issues. Consequently, Huggan and Tiffin also propose an emerging subfield called 'Postcolonial Ecocriticism' which explores the hegemonic connections between social politics and environment. In addition, Bill Ashcroft with Gareth Griffiths and Tiffin has been active in solidifying impactful postcolonial theoretical debates in the form of anthologies. As a result, Ashcroft in his 2001's book focuses on the forms of resistance prominent in postcolonial societies. He endeavors to interweave the theories of postcolonial discourse with the empirical debates in order to imagine anti-colonial narratives by reviewing the historical and political dimensions of the world.

Postcolonial discourse is viewed as inhabiting a range of material conditions and a rhizomatic pattern of discursive practices against colonization. Postcolonial scholarship in academia also incorporates environmental discussions into the discourse especially at the backdrop of Green Imperialism. Ashcroft's 2006 anthology, edited by Ashcroft, Tiffin, and Griffiths, devotes a whole section to the environment, foregrounding the outcomes of European colonialism on the environment and native doctrines. However, Alfred Crosby's 'Ecological Imperialism' and Richard Grove's 'Green Imperialism' view both empire and environment uniformly as homogeneous entities. Crosby's articulation of a biological

integrant in the conquest European imperialism's is outlined by an image of colonial and neo-colonial dynamics which is stripped of some of its essential characteristics.

Ashcroft et al.'s selections, along with Huggan (2004) and Nixon (2005), sketch the formal acknowledgement of postcolonial studies' direct involvement with eco-environmental debates. The 2006 edition of *The Postcolonial Studies Reader* manifests a peculiar hold of environment as a conceptual model, investigating the continued relationships between human and non-human life-forms that establish the global environmental grids. Cheryll Glotfelty also contributes to the postcolonial scholarship by establishing that ecocriticism is primarily a white-centric movement. It can only become a multi-cultural movement when strong connections are established between the environment and problems of social justice, and when a range of voices is promoted to add to the discussion. (xxv)

Moreover, postcolonial ecocritics have frequently participated in the debates of many influential British environmental historians like Alfred Crosby and Richard Grove, whose work highlights the historical inclusion of ecology in the European imperial project, without inevitably authenticating the Eurocentrism lurking behind these two authors' own critical vantage points (Tiffin 2007). Another peculiarity is that the adaptability of Crosby's term ecological imperialism⁴ has been employed at the cost of its historical peculiarity, either obscuring the boundaries between the separate forms of environmentalism or

⁴ Ecological Imperialism a concept introduced by Alfred Crosby, that indicates the role of European biota, including animals, plants and pathogens which facilitated the expansion and domination of European colonial powers.

fracturing imperialism into an overarching concept-metaphor that fails to articulate the difference between general doctrines of domination and specific socio-historical outcomes.

Another distinct variety of ecological imperialism is analogous with a comparatively contemporary term known as biocolonialism. It is often employed by environmentalists to largely talk about the bio-political ramifications of contemporary western experimentations in science and technology (Kimball 1996; Shiva 1997). Dean Curtin, an American environmental philosopher defines the third form of ecological imperialism, environmental racism, as the theoretical and practical structures significantly foreground the interrelation between “race and the environment” highlighting how the suppression of the racialized communities is co-constituted with and often reinforced by, the exploitation and degradation of the ecosystem (2005: 145). Environmental racism can be interpreted as a form of a sociological phenomenon usually found in environmentally unequal treatment of socially suppressive or economically marginalized peoples. Environmental racism can be understood in terms of what Plumwood defines as “hegemonic centrism” which not only connotes environmental racism but also gives the undertones of systematic and structural speciesism; which are employed as an instrument to justify the suppression of animal (and animalized human) “others” in the name of a culture centered on human dominance and rationality with historical roots which can be traced back at least to “a couple of millennia” (2001: 8). Plumwood further states that European exoneration for control, invasion and colonization are a result of this othering which views non-European lands and the people and animals that inhabited them as “spaces”, “unused, underused or empty” (2003: 53). The basis of the ideology of colonization is the one where anthropocentrism and Eurocentrism cannot be viewed

inseparably, thereby implying that anthropocentrism underlies Eurocentrism and is used to legitimize those forms of European colonialism that see the indigenous cultures as “primitive”, “less rational”, and “closer to children, animals and nature” (2003: 53).

What the postcolonial/ecocritical coalition promises is the urgency for a material recognition of the dynamic relationship between different species of humans and animals with their environment, while also giving considerable attention to the cultural politics of representation. Additionally, it also highlights the more specific ‘processes of mediation [...] that can be recuperated for anticolonial critique’ (Cilano and DeLoughrey 2007: 79). Like other modes of ecocriticism, postcolonial ecocriticism also advocates for the role both in relation to the real world(s) it inhabits and to the imaginary spaces it unlocks for the inspection of the ways the real world might be transfigured. Similarly, postcolonial ecocriticism also promises the aesthetic domain of the literary texts while foregrounding its social and political utility as well as its tendency to set out symbolic guidelines for the material transformation of the world (Huggan and Tiffin 2007). In this way, it can be viewed as intervening in the discourse or as a separate activist enterprise; proclaiming Robert Young’s shorthand definition of postcolonialism as a political and philosophical praxis that contests the “disparity” [between western and non-western cultures/peoples], thereby rearticulating and extending the legacy of the “anti-colonial struggles of the past” (4).

In brief, Huggan and Tiffin foreground the conception of ecocriticism “after nature.” By taking into account the readings of Haraway, McKibben, Merchant, Soper and others at the backdrop of humanism in crisis, Huggan and Tiffin lay bare the innovative

prospective offered by the nexus of nature and culture (205). They delineate that literature has the potential to hammer out both the probabilities and the perils of what Haraway terms as the collapse of contrived binary between the subject and the object; the mechanical and the political (qtd. in Huggan and Tiffin 205) and the “selective universalism” (206) of humanist thinking. On the whole, postcolonial ecocriticism along with the literature it concerns is a vital source in this process of “think[ing] beyond the human” (215).

2.5 Eco-critical Perspectives in the Selected Fiction

Ecocriticism is an emerging contemporary field in academia which explores the relationship between man and nature, and between nature and literature. Cheryll Glotfelty (1996) avidly terms this relationship as an Earth-centered praxis in order to analyze literature. He further explains that ecocriticism broadens the perception of the world to encompass the entire ecosphere, as he proclaims that literature is not just an aesthetic idea that floats above domain of the world. Rather, it is a function in an intricately complex global system where energy, matter, and ideas are interchanged (p. xix). Many writers and scholars reading about the ecological changes are aware of the recurring problems caused as a result of the unconscious and ignorant behaviors of humans toward the environment. Scholars such as Huggan and Tiffin blame industrial revolution and capitalism for the exploitation of nature (2010). However, for postcolonial ecocritics, the research establishes the relationship of environment with the imperial and colonial exploitation of natural resources, indigenous people and their knowledge systems.

Many authors from all around the world have talked about a number of environmental issues in their fictional accounts including many Indian Anglophone

writers. In many Indian novels, there is a depiction of ground socio-political realities set against the backdrop of environmental devastation, plundering and exploitation. There are a number of Indian writers such as Arundhati Roy, Aravind Adiga, Amitav Ghosh and others who portray ecological issues of India as well as broadly of South Asia.

Since the subject of my thesis is Ghosh so I will delve into his oeuvre of works to explore the research that has been done on his literary fiction. For instance, Ghosh's recently published novel *Gun Island* (2019) puts to light the nexus between mythology, environment, politics, and history. The novel highlights the issue of migration of both human beings and non-human creatures from their homes and their usual habitats to remote, unfamiliar places (De 5). Ghosh also tinkles many climatic and ecological issues in the narrative. Ghosh himself admits that *Gun Island* cannot be called simply a novel about climate crises, but it is about the “uncanny” changes changing the intricacies of the world in complex ways, and one of them is the rapid deterioration of the relationship between the “humans” and their “fellow non-human” creatures (De 5).

A study by Asis De (2021) investigates the human/non-human interface in the novel usually depicted with the help of an interplay between the corporeal and the uncanny, as well the issues of migration and climate refugees; making a nexus between the conditions of postcoloniality and ecological engagement (1). Examining several episodes in the novel, De discusses the ways through which the “corporeality” of a creature such as “snake, spider, shipworm”, or “even a wildfire” impacts intangible cognitive and psychological dimensions such as “anxiety or trauma” in Dinanath—the central character, and reshapes his “structure of feeling” (1). This study utilizes the concept of ‘affective uncanny’ by

drawing upon a number of theorists such as Lawrence Grossberg and Sara Ahmed to explore the human interaction with various non-human agencies in the novel such as natural disasters (wildfires, floods, tsunamis and tornadoes), animals such as snakes, spiders, dolphins etc., and various mythological and folkloric references such as the Indian folklore of Manasa Devi, and the Venetian myth of 'il mostro.' In the novel, the affective uncanny performs in a number of complex ways ranging from the individual effects to the societal, also interweaving religious motifs with ecological concerns. The novel also delves into the debate of the reconciliation between scientific reasoning and local knowledge, thereby reflecting on the emancipatory postcoloniality beyond any spatio-temporal boundary (De 4).

At its core, postcolonial ecocriticism critically examines the ways in which colonialism has shaped human interactions with the natural world and how these dynamics are represented in literature. One of the central themes that emerge from this body of scholarship is the exploration of colonial exploitation of land and resources. Texts often depict how colonial powers, driven by economic interests, exploited the natural resources of colonized lands, leading to environmental degradation, deforestation, pollution, and displacement of indigenous communities. For instance, a theme that is prevalent in his Sundarbans trilogy (*The Hungry Tide*, *Jungle Nama*, *Gun Island*) is the impact of capitalist exploitation of the natural environment of the developing countries. In most of his novels, he discusses how the discharge of poisonous gases from the developed countries of the Global North and the subsequent rise of sea levels enhances the probability of natural disasters in the Global South (Ferdous 33); therefore helping to raise South Asian consciousness about climate change. Similarly, research on the novel also serves to

investigate the comparisons Ghosh makes between patterns of human and animal migrations due to climate change; thereby shedding light on the issue of multispecies climate justice (Khan 1).

For example, by drawing parallels between the refugee influx into the Global North and the environmental crisis in the Global South, the novel highlights the interplay of social, racial, and historical injustices vis-a-vis the role played by European colonization and global capitalism in escalating the present day climate crisis. Rakibul Hasan Khan terms this as ‘planetary environmentalism’ as he aims to address the issue of planetary crisis escalated by climate change. Khan also claims that Ghosh’s novel brings to the fore the issue of multispecies justice, while also demanding environmental justice for the marginalized communities’ especially from the Global South. Khan further adds that justice for the marginalized communities is essentially connected with the justice for non-humans, as he terms both groups as the principal victims of environmental inequalities (Khan 2).

Resistance and environmental justice are recurring motifs in postcolonial ecocriticism, reflecting the ongoing struggles of communities impacted by environmental degradation and exploitation. Texts often depict characters and communities engaged in resistance movements against environmental injustices perpetrated by colonial powers or dominant societies. Through acts of activism and advocacy, these narratives challenge systems of oppression and advocate for the rights of marginalized communities and ecosystems. For instance, a study by Shijo Kanjirathingal and Saikat Banerjee on the novel *Gun Island* explores the changing living conditions of the people of Sundarbans, aquatic

animals as well as the drastic change in climatic conditions (55). They argue that Ghosh has identified the reason for the changing conditions in Sundarbans i.e. anthropocentric greed. Motivated by the colonial desire of material gains, the coloniser converts every human resource for his profit (56).

Similarly, another closely related theme in postcolonial ecocriticism is the loss of indigenous knowledge and traditions. Colonialism often resulted in the erasure of indigenous ecological practices and worldviews, leading to disconnect between communities and their environments. Scholars have explored how literature reflects on the loss of sustainable ways of living and the marginalization of indigenous peoples' relationships with the land. Writers such as Ghosh in *The Hungry Tide* and *Gun Island* engage with themes of indigenous knowledge and environmental stewardship, highlighting the importance of reclaiming and preserving traditional ecological wisdom. For instance, while exploring folklore and Transculturalism in *Gun Island*, Jane Aditi expounds that the novel is an excellent depiction of the interconnection between the global and local forces (n.p). The writer projects cultural globality by incorporating Bengali mythology and folklore into the narrative. With the mythological tale of a Bengali Gun Merchant and Manasa Devi as a backdrop, the novel tries to explain the ways in which the contemporary world is countering the issues of human trafficking, climate change, migration of human and non-human beings; while also relating it to the world of Bengali folklore and mythology. Aditi also proposes to analyze the ways in which the principal characters of Ghosh negotiate their lives in a culturally hybrid world; a world where mythology is interweaved to the postmodern realities and contemporary issues around the globe (n.p).

Similarly, Suhasini Vincent analyses Ghosh's fiction and nonfiction to relate it to the practice of rhetoric. She establishes that his narratives reveal in their capacity to interpret, construct and reconstruct "official Western versions of history, politics, and cultures" (2). Ghosh reshapes and revisions the mythologies and folklore coming from postcolonial spaces in order to present an alternative source of knowledge about the world (Vincent 2). For example, in *Gun Island*, Ghosh presents the idea that the stories transmitted orally across time and spaces have life cycles of their own, and it depends when they are active or dormant as a result of turmoil and colonial disruption.

In addition to Ghosh, Sinha has also been credited with articulating a more nuanced representation of environmental degradation, ecological imperialism, and environmental justice perspectives. His most recent novel, *Animal's People* centers on Bhopal Gas Tragedy (1984) and its prolonged aftereffects on the inhabitants of Bhopal, India. A number of studies have been done on the novel that elaborate the capitalist exploitation of the marginalized people, and their struggle for environmental justice. For instance, according to Rob Nixon, Animal situates himself at a peripheral standpoint to "Khaufpur's environmental justice movement", which emphasizes how Animal's critique towards legal treatises underscores "picaresque" narrative strategies utilized to uncover the crimes that society's dominant powers commit and from which they are "structurally exonerated" (Nixon 452–53). Similarly, Kosar et. al's research also brings into focus the continuous struggle of indigenous people for "eco-justice" against this "eco-crime" (61), which is analysed through an eco-critical lens. Their study deploys Laura Westra's term 'Green

Politics'⁵ to explore the ways through which the developing countries become the victims of ecological imperialism at the hands of developed countries. Westra basically underpins environmental health and 'human rights. In *Eco violence and the law: Supranational Normative Foundations of Eco-crime*, Westra claims avidly that contamination cannot merely be understood as a civil wrong moderating way to compensate its sufferers economically but it should be seen as a "pure form of criminality" that is a warrant to violent sanctions (Kosar et. al 61).

Likewise, in *Environmental Justice and the Rights of Indigenous people* (2008), she investigates the threat conditions challenging the native people of the world and the challenges that they confront to protect their 'traditional lands, identity, and their interdependence' on each other. She conveys specific circumstances of indigenous societies of different countries and also ecological risk factors which threaten their survival collectively. Westra focuses on the injustice done in the form of the devastation of the natural and man-made environment, which is discussed in the sense of destroying their 'reproductive and regenerative' powers, is not universal (61). By deploying this theoretical framework, Kosar et. al investigates Sinha's novel *Animal's People* to represent the unwanted changes in society that make people hollow and helpless. The study focuses on the ecological violence in India by outsiders and the endless efforts of Indian people to question environmental justice. Their research is a contribution to the field of Ecocriticism which points out environmental degradation and its impacts on the lives of human beings resulting from Industrialization (Kosar et al 55).

⁵ Green politics, or ecopolitics, is a political ideology focused on promoting an ecologically sustainable society typically grounded in environmentalism, nonviolence, social justice and grassroots democracy.

Similarly, a study by Shinu C explores the indifferent attitude of the government amidst the Bhopal disaster. Walters observed it as the “worst environmental crime” of all time (Walters 324). He also argues that the comprehensive compensation, including healthcare services and environmental decontamination are systematically denied. It is a kind of criminality done both towards “nature and ecosystem” (Shinu C 15). Consequently, the polluted surroundings adversely affect the ‘human and the animal world’. Shinu’s study investigates the ecological problems of Khaufpur where high degree of chemicals are present in water, soil and also in the air, and throws light on the tragedy, its aftermath and also on the prevailing environmental pollution (15). As Nixon in his essay ‘Neoliberalism, Slow Violence and the Environmental Picaresque’ recognizes Khaufpur as “a fictional stand-in for Bhopal”, but also a “synecdoche for a web of poisoned communities” stretched across the global south (Nixon 446). Acutely poisoned communities in the novel have been spread across the city of “Khaufpur”, translated from Urdu, meaning “City of terror” (Nixon 446). Sinha endeavors to unfold the “consequences of an ecocide” (15). He conducts a forensic examination of this devastated landscape and critically analyses every single dimension of human as well as non-human worlds. Consequently, the environmental pollution, destruction, homicide and ongoing death due to contamination become starkly apparent. In Nixon’s perspective the novel, foregrounds the “burden of unsustainable ecological degradation” that affects the health and living conditions of the economically deprived groups directly (Nixon 444). Sinha unravels the environmental terror which prevails in the fictional representative of the Bhopal County: “Khaufpuris... face a clear and present change of an environmental kind.” Nixon observes this danger as “an immanent and imminent terror”, that is “faceless yet physically intimate”, and it percolates

through the “penumbral time of the illimitable in between” (Nixon 457). Even after the explosion, the residues of the pesticides never get cleaned up and so its presence in the environment goes on annihilating the insects and spreads silence (Shinu 16).

Viktor Lindström in “Capitalism, Animal’s Eyes, and the Environment -An essay about the environmental effects of industrial capitalism in Indra Sinha’s *Animal’s People*” attempts to probe the interconnections between neoliberal capitalism and ecocritical concerns in *Animal’s People*. His analysis underscores that environmental degradation and the subsequent marginalization of people is a result of capitalist exploitation of the natural resources (3). Lindström uses Eco-Marxism and Social Ecology as the main theoretical lenses to delineate the ways in which capitalism prioritizes profit and money over environmental concerns; which in turn destroy the ecosystems such as Khaufpur.

As a socio-political theory, Eco-Marxism attempts to foreground the relationships between human beings and the environment (Garrard 31). It serves as a critique of classical Marxism which does not include environmental issues as a part of its theoretical underpinnings (Hornborg 82). As a matter of fact, Eco-Marxism postulates that labor is one of the “biophysical resources” (82); suggesting that capitalism does not only work via physical labor; rather its foundation is proportional to any activity “where the income outmatches the original cost of the investment” (82). For example, in lieu of neoliberal capitalism, it postulates that there exist other forms of biophysical resources apart from labor such as energy that are can be affected as a result of capitalist exploitations. For instance, in *Animal’s People*, we can see that the factory disaster does not only affect the workers or people, but the repercussions can be seen in the environment as well.

In addition to biophysical resources, another term is important vis-a-viz *Animal's People* which Hornborg refers to as “capital accumulation” (80); which refers to the idea that the efficiency of the capitalist workforce is enhanced as a result of importing goods from other countries. However, it also creates a divide between countries on the basis of those who can import goods called as core countries, and those who are unable to; resulting in the creation of economic discrepancies between them (Hornborg 80). This relationship can also be observed in the novel where the company responsible for the disaster was initially set by a core country America. So the research around capitalist accumulation with reference to *Animal's People* explores the connection between the company's illegal practices and the environmental disaster in Khaufpur. The Eco-Marxist and socio-ecological analysis revolving around *Animal's People* thus explores the ways in which capitalist structures exploit the resources of Khaufpur, thereby not only making the lives of people miserable but also causing environmental degradation and other ecological problems.

With the help of the review of the literature discussed above, it can be observed that new materialist insights such as Barad's theorization of agential realism, Bennett's idea of vital matter, Harraway's and Alaimo's transcorporeality serve to dismantle the conceptualization of matter as inert. By specifically looking at the status of toxic waste, this literature review has challenged the anthropocentric conceptualization of waste as only a by-product by foregrounding its movement across spaces and bodies; thereby depicting it as an active contributor in shaping socio-ecological exchanges. New materialist insights endow matter with agency; consequently waste emerges as a vital force that influences and is influenced by its interactions with human societies and ecosystems. By investigating the

intricacy of waste with the apparatuses of power, capitalism, and imperialism, scholars explore the unequal distribution of waste, environmental injustices, and the politics of waste management and disposal. It has further highlighted the major concepts related to my study i.e. New Materialism, Postcolonial Ecocriticism, Waste Management and Urban Politics etc. and the ways they have evolved over the years. Through interdisciplinary methodologies and critical engagement with contemporary issues, this literature review has served to deepen the understanding of the complex interplay between waste, colonial legacies, environmental governance, and health concerns.

As a result, this literature review has served to outline the major ideas that collectively uncover my research's conceptual framework. Although there exists plenty of scholarship concerning the agentic properties of matter and toxic waste; there seems a pertinent gap with respect to the mechanisms through which toxic waste actualizes its agency especially with respect to the novels I have selected for this research. This research aims to fulfil this gap by elaborating how toxic waste exerts its agency and power by making body-toxin assemblages within both human and non-human bodies; thereby altering their body chemistry. As a result, my research forms a nexus and link between material ecocriticism and environmental justice framework to delineate the ways in which the interactions between toxic waste and human/nonhuman bodies form dynamic assemblages which thereby configure their living patterns. Existing research mainly focuses on the environmental and socio-political repercussions of toxic waste separately. I, however, seek to explore the co-constitutive interaction and relationship of toxic waste and material bodies. In so doing, this study seeks to contribute in the broader debate vis-à-vis post-humanist eco-poetics, environmental humanities, and postcolonial ecocriticism.

By building upon the existing research in New Materialism (i.e. Barad, Alaimo, Bennett, Deleuze and Guattari) and Postcolonial Environmental Justice framework (Nixon and Ray), I specifically focus on two South Asian novels i.e. *Animal's People* and *Gun Island* to problematize the agency of toxic waste. My focus is on the afterlife of toxic waste; the trajectory it follows from production; to being dumped; and therefore forms assemblages with human and animal bodies, thus transfiguring their living patterns. Furthermore, I connect the idea of spatial politics of environmental toxicity with unequal distribution of environmental risks to highlight the ways in which capitalist powers endanger the lives of innocent people and animals due to their negligence and greed. In this way, my research foregrounds the post-humanist conception of embodiment and material entanglement between human and non-human agencies by bringing to the fore the agency of toxic waste.

Chapter 3

Body-Toxin Assemblages and Non-Human Agencies

This chapter analyses *Animal's People* and *Gun Island* in order to explore the afterlife of toxic waste; what trajectory does the toxic waste follow after it is dumped, and how does it form assemblages with human/animal bodies, thus transfiguring their living patterns. In a fast capitalist system, once dumped or discarded, waste ceases to exist. This conception of waste as negligible and unimportant is an outcome of an anthropocentric and exploitative capitalist system (i.e. out of sight, out of mind) where matter (i.e. waste) is seen as inert and passive, devoid of any agentic power. In this research, I critique the anthropocentric conception of waste as inconsequential by exploring the afterlife of toxic waste. I draw upon Barad's concept of Agential Realism and Alaimo's notion of Transcorporeality to highlight the ways in which toxic waste actualizes its agency by making connections with the human and animal body. In her theory of Agential Realism, Barad argues that objects do not "pre-exist", it is through entangled "intra-action" that they emerge and only within these processes do their different characteristics and boundaries materialize (150). In an agential realist account, matter does not account for a fixed substance; instead matter is substance in its "intra-active becoming"—not an essence but an emergence, agency is not possessed but enacted (151). Barad argues that it is impossible to separate or distinguish human and non-human agencies from each other, as they are sustained through a ceaseless process of intra-actions. Like Barad's agential realism, Alaimo's idea of trans-corporeality argues for a mutable human body in an unpredictable relationship with nonhuman matter. I draw upon Barad's agential realism, Alaimo's transcorporeality, and Deleuze-Guattari's

concept of assemblages to argue that toxic waste actualizes its agentic power through the body of humans and animals by forming body-toxin assemblages. By connecting this idea with Alaimo's trans-corporeality, I argue that the non-human world of matter (toxic waste here) travels across the body's permeable boundaries, and thus alters the nature of the body (both human and animal).

3.1 Tracing the Afterlife of Toxic Waste through Human/Non-Human Intra-actions

An anthropocentric discourse generally regards waste as the things that have been considered worthless and therefore rejected, and do not possess any materiality. Materiality is thought to be the quality attributed solely to human beings. But over the recent years, philosophers and theorists have been specifically subverting this ontology and questing to bring forth new, more diverse theories of materiality. Through this thesis, I argue that toxic waste actualizes its agency by coming in contact with human and nonhuman bodies. In this way, it can be said that agency cannot be understood as emerging from a subject status, but rather emerges from its "intra-actions" in a framework of relations in which bodies and environments are co-constituted (Alaimo 154). By focusing on Barad's account of intra-action and Alaimo's transcorporeality, I reject the humanist account of agency where the question of nonhuman agency may seem a bit queer, since agency is generally associated with issues of subjectivity and intentionality. However, if agency is understood as an enactment and not something someone has, then it seems not only appropriate but important to consider agency as distributed over nonhuman as well as human forms (Barad 214-215). Agency is a matter of intra-acting; it is an enactment, not something that someone or something has. It cannot be designated as an attribute of subjects or objects (as

they do not preexist as such). Things do not exist preceding time, waiting to be recognized –they materialize through particular agent-driven encounters. It is through these interactions that they obtain specific properties. Beyond these specific agent-driven “intra-actions”, words and things remain undefined. So matter should not be perceived as a characteristic of objects but, like language itself, as something constantly shaped and reshaped by ongoing interactions (Barad 150). Bodies do not simply take their places in the world. They are not simply situated in, or located in, particular environments. Rather, “environments” and “bodies” are intra-actively co-constituted. Bodies (“human,” “environmental,” or otherwise) are integral “parts” of, or dynamic re-configurings of, what is (Barad 170); thus suggesting a more dynamic relationship between bodies.

In Western thought, matter is considered passive in the sense that any catalyst for transformation or dynamism must be provided to it from without; it has no agency of its own (Barad 30). Diana Coole exclaims the matter often to be perceived as passive – something inactive and worked upon by humans who exploit it for their survival, restructure it for artistic expression, or attribute subjective meanings to it. But what if we rethink this conception? What if matter is not mere a subject for human actions, but a vital existence in its own right –agentic, self-evolving, and already imbued with agency and meaning? This conception breaks down the common divide between the passive materiality and the “subjective realm”, urging us to think materiality itself as dynamic and alive with potential (Coole 30-31).

This uncovers a deeply entrenched anthropocentric reading of the relationship between human and environment –one that prefers human dominance and disregards the

intricate relations between human histories and non-human agencies, ecologies and landscapes (Plumwood 7). Such a view is deeply precarious, as it ignores the agency of matter –a conceptual lacuna that continues to pose significant intellectual challenges across both the natural and human sciences (31). Barad, in an attempt to bring to the fore an account of the dynamic nature and agentic power of matter, endeavors to revitalize the philosophical connections between ontology and epistemology. In *Meeting the Universe Halfway*, she puts forth the concept of “agential realism;” which is a kind of scientific realism as it accounts for a real material world. However, unlike scientific realism, agential realism does not postulate matter as inert and something that exists independently from the mind. Rather she posits that matter is active and agentic as its agency is interconnected with that of human beings. Therefore, I draw upon the foundation provided by Barad to foreground the agency of toxic waste in order to establish that it is more than just a passive matter. In this chapter, I explore how toxic waste functions as a powerful substance with the capacity to produce change in *Animal's People* by Sinha and *Gun Island* by Ghosh. I analyze how these texts illustrate the dynamic interplay between humans and toxic substances, highlighting instances where toxic waste exerts its agency as an active entity.

3.1.1 Toxic Waste as a Material Actor in *Animal's People*

Sinha's *Animal's People*, at the backdrop of the Bhopal disaster, serves as a poignant illustration of this concept of material agency of toxic waste. The novel revolves around the repercussions of the toxic waste released by the Union Carbide plant that infiltrates the lives of the residents of *Khaufpur*⁶, fundamentally altering their existence and shaping their collective identity. The protagonist, *Animal*, embodies the consequences of this toxic

⁶ Khaufpur is a fictional town situated in Bhopal, India.

environment. His physical deformities, resulting from exposure to hazardous substances, symbolize the direct and insidious impact of the disaster. The body of Animal is my principal object of analysis, in addition to the bodies of Khaufpur's other residents as well as animals, and the environment. I analyze Animal's character to explore how toxic waste, when comes in contact with the bodies of human/nonhumans, exerts its agency and makes body-toxin assemblages. It therefore not only harms individuals but also reconfigures social relationships and community dynamics. The very landscape of Khaufpur becomes an agent in the narrative, shaping the lives and actions of its inhabitants. As Animal reflects on the pervasive effects of pollution in his community, the city itself becomes a character, infused with despair and resilience. The toxic landscape compels the residents to confront their suffering, spurring them toward collective action and activism.

In the novel, there are a number of instances that can be elaborated to foreground the agentive nature of toxic waste. In agential realism's reconceptualization of materiality, matter is not a static object but an ongoing process of "intra-active becoming" – continuously in motion and constantly negotiating itself (Barad 353). This unfolding rejects any linear comprehension of causality in which causes are followed by the effects in a sequential manner; instead matter comes to existence through entangled, dynamic transformations that reject such linear progression. The generative vitality of matter is situated not only in its ability to generate new entities, but in its capacity to bring new worlds to the fore. It partakes in an ongoing reconfiguration of reality itself –an active commitment world-making rather than only object-making (Barad 32). According to the theory of "agential realism," matter is not a discreet substance or a passive entity, but a process –substance in its "intra-active becoming". It is not a "thing" but "doing": a

provisional crystallization of agency, a materialization that results from dynamic relational enactments (Barad 151). Agency should not be conceived as a quality owned by an individual subject or object. It rather emerges as a result of dynamic processes of intra-actions and relational enactments. In such context, agency is not something *has*, but something that *happens*. It cannot be associated with pre-existing entities, since subjects and objects themselves are generated through these very interactions (178). Unlike “interaction”, which suggests the involvement of pre-existing, independent objects, the concept of “intra-action” debunks this conception by proposing that objects do not precede their relations (Barad 139). The bodies of chemically sensitive subjects exemplify this concept of “intra-active becoming”, where bodies are not passive but vitally constituted through their entanglements. In this context, Barad presents “agential realism” –a framework that coalesces epistemological, ontological and ethical underpinnings to rationalize the entangled relations of human and non-humans, material and discursive, and natural and cultural aspects in in scientific and socio-material discourses. This outlook transcends the dialogue beyond the conventional binaries like constructivism versus realism, agency versus structure, and idealism versus materialism (Barad 26).

In *Animal's People*, there are many instances in the novel where we are able to point out the agency of the toxic waste left behind by the factory. Chemical gas leak from the Texas-based Union Carbide Corporation's pesticide plant in Bhopal, India in 1984 killed scores of people. Moreover, the toxicity of the damaged environment kept on causing different types of physical impairment to the survivors, mostly the poor people who were directly exposed to the toxicity. *Animal's People* revolves around the incident of that disaster where the situation of the characters exemplifies the horrific destruction caused by

the gas explosion and the subsequent toxic waste. For example, a character in the novel proclaims that it is for all who got badly injured that night and those who became severely ill due to the water of their use being “poisoned by the factory” (Sinha 131). These people are “full of pain, can’t breathe, [and] are burning with fevers”, their condition gets worse when the reader observes their flesh “melting from their bones in flakes of fire” (136). Sinha paints the picture of the miserable condition of the citizens of Khaufpur when he mentions the story of Shambhu, who is a “twice victim” of the Kampani. He had “breathed the poisons” (146) of the explosion that night. The wells and water bodies in his neighborhood are full of poisons leaked from the factory. Shambhu’s body is “a sack of pain” and he finds it very difficult to breathe. He tells his wife that he is unable to “get a breath” and it seems as if he is going to die (Sinha 147). This indicates that even after being discarded, the poisonous chemicals have still made their way into the bodies of the people. It also upholds the post-humanist, material turn of ecocriticism where agency is not a fixed phenomenon under human terms and conditions but is always emerging in relation to the material surroundings and associated narratives. The reactions emerge in collaboration with the toxicity of Khaufpur, which is actively shaping and contesting the reality of Khaufpur and its people.

Similarly, there are characters of Pyaré Bai and Aftaab who are married to each other. Aftaab works in the Kampani’s factory. He tells her wife about the dangerous chemicals in the factory, if anyone accidentally touches those chemicals, “the skin would blister” (Sinha 83). On that night, Aftaab begins feeling “stinging in [his] eyes” like the “burning chilies” (83). He manages to escape with his family, nevertheless they all get damaged by the poisons. Aftaab gets seriously ill as the reader observes him “coughing

foam tinged with blood" (84), and his eyes are nearly shut. When they return home, they see that all the cooking pots and metal objects are covered with "green crust" (84). This account of the toxins released from the factory suggests that the toxic waste is indeed reactive, agentic, and volatile. Similarly, in another instance in the novel, a character named Nisha manifests how their wells and other water bodies are full of poison (107). The poisons are present in their soil and water, and have reached in "[their] blood, [and the] milk" of the mothers (107). She points out toward the distressing condition of the city and wants to leave it because "everything [t]here is poisoned" and if someone continues to live there they "will be [poisoned] too" (108). These examples advance a post-humanist definition of bodily materiality contrary to the traditional idea of a bounded, perfect human body. The agency of the toxic substances, after coming in contact with the human body, subscribes to the post-humanist agency propounded by Barad, Alaimo and other material eco-critics, which posits that agency is not to be "necessarily and exclusively associated with human beings and human intentionality" (Barad 132), but it is a "pervasive and inbuilt property of matter," (132), as part and parcel of its "generative dynamism" (132). As a result of this dynamism, reality emerges as an "intertwined flux of material and discursive forces, rather than as complex of hierarchically organized individual players" (132). Likewise, the reality of Khaufpur after the night of the blast is shaped by the entanglement of all the material forces. In the process, toxic waste ceases to remain a spectator, rather become a volatile force which can bring about and inform change.

Sinha draws a very compelling picture of the night of explosion where the poisons produced by the Kampani killed a large number of people immediately, and those who were not killed found themselves struggling with "fainting, fits, pain, blood [being]

coughed up" (Sinha 112), as they are unable to even breathe after coming to contact with toxic chemicals. Moreover, there is a pain that Animal describes which "gripped his neck and forced it down" (15); he describes it as if "a devil rode [his] back and chafed [him] with red hot thongs" (15). This burning in the muscles of Animal's body turned into a fever and his "back began to twist" (15). When "this smelting in [his] spine" ceased, the bones became "twisted like a hairpin", the highest point in his body is now his buttocks (15). Subsequently, Animal's legs begin to cripple and he starts moving and running on hands and knees like a real animal. Justin Omar Johnston postulates that Animal's body is tormented by the diffusion and infiltration of industrial thermal waste into the living bodies, a metal fume fever that tones down and reshapes the vertebrae's structure from inside out (Johnston 29). This alignment and posture highlights a new type of "factory life" which is not about extensive hours of tedious and monotonous work producing a pain in the muscles, but of the factory living as a chemical adaptation system, diffusing into Animal's body, and smoldering his hidden interior, cognitive and genomic self (29). The inoculation of toxins into Animal's body underscores the widespread toxicity of the disaster and redraws the materiality of his body into a liminal form. The effect of the catastrophe exhibits horribly much later when he turns six, and his body's excruciating metamorphosis turns him into a human-animal hybrid.

The contamination spreading through the air and the water system in Khaufpur, the lingering destructive health risks, and another instance of blast and eruption at the factory –all indicate an unending phase of cataclysm. This phase of crisis conversely means another series of risks for the coming generations who bequeath the toxicity and health hazards. People are even afraid to multiply their progeny. Sinha sketches a horrifying

imagery of the hospitals where a doctor named Ellie articulates the representation of Khaufpuri citizens where she tells her friend Frank that the poisons are everywhere in the wells, in “people’s blood”, as well as in “mother’s milk” (Sinha 107). She points out the horrific and grotesque conditions of “fetuses, babies that never made it” (322) as a result of that gas explosion. She goes on to explain that there are such wretched consequences of that explosion that one would not “want to see such things, even in [their] nightmares” (322). People are afraid to produce children because there is poison and toxicity everywhere. Nisha tells Zafar that she does not want their children growing up there because the poison in Khaufpur’ is present not only in the land and water, it has also seeped “in[to] people’s hearts” (196). Sinha also mentions a character in his novel that is the dysmorphic embryonic tissue that Animal calls *Khā-in-the-Jar* (57). It is an unborn fetal remain from the evening of the disaster, preserved for the research. A “child of poison” with a second head (congenitally fused twin) protruding from its neck and “still waiting to be born” (59), the *Khā-in-the-jar* is a perfect example of the grotesque consequences of the material agency of the toxic waste left out by the factory. It in a way dismantles the erroneous human-nature dualism that assumes human superiority, and moves beyond what Anthony Lioi identifies as the ‘dirt-rejecting’ propensity of pioneering environmental literary criticism to embrace the complex, ‘impure’ material nature common to all bodies, things and places (Lioi 17). The manufacturing, discarding, and regulation of waste is clearly instrumental in comprehending this interrelatedness. The discharge of various kinds of waste – toxic agents and poisonous compounds etc – indicates the permeable exchange of our human bodies and an allegedly separate natural world with which we are intricately linked.

3.1.2 Vitality of Toxic Waste in Material Ecologies in *Gun Island*

Similarly, in *Gun Island*, toxic waste serves as a significant catalyst in the migration narrative, shaping the lives of characters and influencing their trajectories. Deen, the protagonist, embarks on a journey that reveals the impact of environmental degradation on individual and communal identities. Throughout his travels, he encounters various locations ravaged by pollution, underscoring the ways in which toxic environments disrupt lives and force individuals to navigate a world fraught with uncertainty. One poignant moment occurs when Deen visits his childhood home in Kolkata, only to find it transformed by industrial pollution. The toxic waste that pervades the area serves as a reminder of the consequences of unchecked industrialization. This realization triggers a profound reflection in Deen about his identity and sense of belonging. The pollution does not merely alter the landscape; it reshapes the very fabric of his memories and connections to the past. Here, Ghosh illustrates Alaimo's notion of transcorporeality, showing how the presence of toxic substances impacts personal narratives and collective histories.

Furthermore, Ghosh explores the consequences of migration driven by environmental degradation. As communities are forced to relocate due to rising sea levels and toxic conditions, their cultural identities are threatened. The character of Rafiq exemplifies this struggle. His experiences reveal how toxic waste not only displaces individuals physically but also disrupts their sense of self and belonging. Ghosh emphasizes that the agency of toxic waste extends beyond physical harm; it alters the emotional and psychological landscapes of those affected.

Another significant indication of the agency of toxic waste is when Piya, a researcher, and Deen discuss the beaching of whales. Nilima (one of the characters) tells Deen about “dead oceanic zones” (104) – expansive water stretches that have reduced oxygen levels –inadequate for fish to sustain. They have been increasing at a staggering speed, mainly due to remnants of synthetic fertilizers. When they are leached into the sea they trigger a chain of reaction that causes to evacuate all of the oxygen from the water. Only a small number of precisely adapted species can endure those conditions –everything else perishes, which is why these bodies of water are called “dead zones” (Ghosh 104). Piya also finds out that many of the rare species of dolphins, and other marine and coastal animals are direct victims of poor industrial waste management. Chemicals fertilizers and toxic waste is being washed into the ocean, and its chain reaction is reducing the oxygen content of the water. As a result, the existence of sea creatures is at stake. Consequently, many aquatic areas are inhospitable for several marine animals, thereby creating ‘oceanic dead zones.’ As per the narrative of the novel, the dead zones have also began to appear in the rivers too. Ghosh portrays this reality with the help of a character named Moyna who lost her husband in a severe cyclone, illustrating how the region is becoming increasingly uninhabitable. Moyna asserts as if both “land and water is turning against the people of Sundarbans” (Ghosh 53). Day by day, the sea is consuming the Sundarbans. Both the plants and animals of the mangrove forest are the victims of the deadly effects of the polluted waters of the rivers, and the subsequent global warming and climate change caused by the polluted gases released by the refinery, as Nilima observes that the islands of Sundarbans are continuously “being swallowed by the sea” (Ghosh 19). These incidents foreground the afterlife of toxic waste; it cannot be discarded as inconsequential after it is dumped. Rather

it has the ability to produce a number of unintended physical and chemical reactions in the environment. Therefore, it is also likely to “horizontalize” the interconnections between “humans, biota, and abiota” (Bennet 111). It draws human attention sideways, away from an ontologically ranked Great Chain of Being and toward a greater appreciation of the “complex entanglements of humans and nonhumans” (112) as shown in the above examples where the dumping of toxic waste and chemicals in a river by a refinery can result in a number of life-changing consequences.

The custom of interpreting the world into things (dead matter) and beings (living entities) motivates us to undermine the vitality of matter and the vibrant forces of material formations, for instance, the way our trash is not “away” in landfills but generating lively streams of chemicals and highly reactive winds of methane at this very moment (Bennett vii). Bennett's theory of vibrant matter also helps us in understanding that non-human entities possess a form of agency that can influence human experiences and social structures. She argues that matter is not passive; it is vibrant and alive with potential, capable of enacting change. As this thesis is dissection of human narcissistic worldview and anthropocentrism, by enhancing the prestige of inert matter, I expound that toxic waste also possesses essential material nature as in Bennett's *Vibrant Matter*, confrontations with landfills and trash operate as paradigmatic representations of “Thing-Power”: the remarkable potential of non-living things to “animate, to act, to produce” striking and nuanced “effects” (3). Matter is not a passive extractable commodity for human exploitation, rather it is vibrant: as Barad postulates matter as a substance in its “intra-active becoming”, it is not a “thing” but a “doing”, it is in fact a “congealing of agency” (151). This interpretation of matter as “intra-active becoming” non-anthropocentric

ecological framework that declines to view the distinguished position of human as separate from the backdrop of nature, and instead delves into interfaces, interconnections, and evolutionary material/discursive approaches (Alaimo 142). The reactions produced by the toxic matter (toxic waste in this case) in both the selected novels show that toxic waste possesses an active agency and it maintains a performative relationship with other bodies.

3.2 Body-toxin Assemblages and the Interplay of Human/Non-human Agencies

In the first part of the chapter, it has been established very clearly that the anthropocentric perception that toxic waste as inconsequential is inherently incorrect, as it has the ability to produce a number of unintended material reactions in the environment. Now in order to establish the way through which toxic waste materializes its agency, I draw upon Deleuze and Guattari's concept of assemblages and Alaimo's concept of Transcorporeality to extend that toxic waste actualize its agency by making assemblages with human and non-human bodies and actualizes its agentic power through the body of humans and animals. Deleuze and Guattari define assemblages as spontaneous alliances of heterogeneous elements, of dynamic components of all kinds. Assemblages are thriving and rhythmic coalitions that are capable of functioning regardless of the sustained existence of forces that obscure them from within. They have asymmetrical contours, because some of the positions at which numerous affects and bodies intersect are more densely congested than the others, so power is not equally dispensed across its surface. Assemblages are not regulated by any primary axis: no one type of material possesses adequate proficiency to establish constantly that trajectory or effect of the coalition/group. The outcomes triggered by an assemblage are, rather, emergent characteristics, emergent in a way that the proficiency to cause something to occur (a newly modified materialism, a blackout, a war

on terror, a hurricane) is different from amount of the vitality of each material force considered separately. Every member or prospective member of the assemblage carries a specific vital force, however, there is also a potency associated with the grouping as well i.e. the agency of the assemblage. Moreover, each member-actant of the assemblage retains an “energetic pulse” which is slightly detached from the assemblage; thus assemblage never exists as stolid, but is an open-ended collective, a “non-totalizable sum” (Bennet 24). Therefore, an assemblage does not only has a specific history of coming into existence but is also limited or finite in terms of life span (24).

Similarly, Alaimo’s work *Bodily Natures: Science, Environment, and the Material Self* (2010) stems in some ways from Barad’s theorization of the world as enmeshed and evolving. Like Barad’s agential realism, Alaimo’s concept of trans-corporeality acknowledges the human to a significant extent interconnected with the “flows of substances and the agencies of environments” (476). As suggested by Alaimo, we cannot detach the human body from the environment in which it resides. The inanimate matter traverses across the body’s porous boundaries in a mutual exchange in which the human body structures the nonhuman and in return, is structured by it. This discourse of the trans-corporeal body stresses upon the fact that both organic and inorganic nonhuman agencies transcend the perforated boundary of human skin, penetrating the body and generating indeterminate changes within. Trans-corporeality does not only trace the ways in which various substances “travel across and within the human body” but also the ways in which “they *do* things” — often “unwelcome or unexpected things” (Alaimo 146). Human interplay with toxic waste, silica dust, synthetic pest control agents, and numerous other

agents cause increased cancer rates, reproductive disorders, and degenerative diseases, as nonhuman matter invades the body and reconstruct it from within.

The framework of intra-actions, transcorporeality, and body-toxin assemblages offers a nuanced understanding through which to analyze the relationships between toxic waste, human bodies, and social structures as it is closely relevant to *Animal's People* and *Gun Island*, where the interactions between humans and toxic substances reveal the complex dynamics of agency and change, resulting in a number of consequences. By taking into account Barad's idea of "intra-action" and Alaimo's trans-corporeality, I argue that every human-made mixture or compound (in this case toxic waste) acts and produces a variety of unanticipated material repercussions in the environment. I aim to explore the afterlife of toxic industrial waste by tracing its path from production to consumption to dumping and entering into the human/animal bodies, forming assemblages and eventually altering their natures and identities. Toxic waste exerts its agency by making complex assemblages with both human/non-human bodies. In this way, waste ceases to be a mere pile of dead matter, but can be seen as a collaborator and actant, helping deconstruct the notion of human as the sole possessor of agency.

The framework of assemblages, as articulated by Deleuze and Guattari, serves as a rich theoretical framework for analyzing the complicated networks between human and non-human beings. Assemblages encompass the dynamic interactions between bodies, environments, and the socio-political contexts that shape their relationships. This concept is particularly relevant when exploring the body/toxin assemblages I argue that toxic waste forms assemblages with human and non-human bodies and actualizes its agentic power

through the body of humans and animals. For Deleuze and Guattari, the assemblages produce unpredictable associations, reconfigurations and complex epistemic diversities and actions as they produce, extend, and confront other assemblages (1987). Based on their perspective, assemblages are always collapsing and disintegrating, forming new alliances, being generated and regenerated –a fluid dynamics through which sociocultural contexts arise (1987). I aim to connect this idea with Alaimo’s trans-corporeality to argue that the non-human world of matter (toxic waste here) travels across the body’s permeable boundaries, and thus alters the nature of the body (both human and animal). The novels selected for this study illustrate how toxins—be they environmental, social, or psychological—reshape the connections between humans and non-humans, ultimately transforming identities, relationships, and societal structures.

3.2.1 Intercorporeal Toxic Assemblages in Human/Non-Human Ecologies

In both the selected novels *Animal’s People* and *Gun Island*, the relationship between the inhabitants of Khaufpur and Sundarbans, and the toxic environment is characterized by a profound sense of entanglement. The residents’ experiences are shaped by the toxic waste that surrounds them, and their responses to this reality reflect the interplay of human and non-human agencies. For instance, *Animal’s People* presents a profound narrative that interrogates the consequences of environmental degradation through the story of its protagonist, Animal. Born as a human but raised in a post-industrial landscape ravaged by a chemical spill, Animal’s very identity is an assemblage of body and toxin. His physical form, characterized by animalistic traits due to the chemical exposure, reflects a complex interaction between his human origins and the toxins that permeate his environment. As he recalls the incidents of that tragic night, he remembers how he had been found “wrapped

in a shawl”, the night of explosion “lying in a doorway” as he was just a “child of a few days” (Sinha 14). Nobody was able to recognize who he was, his parents and other relatives must have died “for no living soul came to claim [him]” (14). He was “coughing, frothing etc. plus nearly blind” and his eyes had “screwed themselves against the burning fog” and the poisons had caused the “white slits [to be] bleached on [his] eyeballs” (14). The protagonist of the novel, Animal, is an adolescent boy who lives on Khaupur’s (Indian city of Bhopal) streets. Since his backbone is severely impaired, he cannot walk steadily and instead walks on all fours. As a newborn, he was one of the countless victims of poison gas leak incident of an American company popularly known by Khaupuri citizens as the Kampani. He also lost both his parents on the night of the disaster. The novel is clearly based on the human and environmental disaster at the Union Carbide factory in Bhopal in 1984.

Sinha creates a seething, vibrant city Khaupur in *Animal’s People* as he asserts that the night of explosion the people of the city came to know “terror beyond what a dictionary can define” (Sinha 283). They did not know who was responsible for that destruction. The people continue to experience “extreme fear”, and “violent dread”, because they cannot predict what type of “horrors might yet emerge in their bodies” (283). It is a place most of whose inhabitants were crippled for the rest of their lives on that fateful night. Sinha begins his novel through the protagonist Animal’s declaration where he proclaims that he “used to be human once” (1). He used to walk upright like normal human beings do. Ma Franci who takes care of Animal tells him that he was normal once, but this information does not provide comfort to Animal as it feels to him like “remind[ing] a blind man that he could once see” (1). This declaration by Animal asserts that his bodily composition has been

altered by the disaster. Deleuze and Guattari's notion of the assemblage helps us understand how Animal's identity is not fixed but rather fluid and constructed through his relationships with both humans and non-humans. The toxins that have altered his body are not merely pollutants; they become part of his existence, shaping his interactions and worldview. Animal once describes his "twisted" feet which are near the fireplace; the skin of his feet is "thick and cracked" and they "a little bent to one side" (13). The assemblages and material intra-actions bring together human/animal bodies with toxic waste in heterogeneous and unforeseen ways.

The assemblage is less concerned with "what it is" then, and more with "what it can do", what it can generate and bring about (Deleuze and Guattari 4). In Deleuze-Guattarian terminology, it operates not as a static term but as a process of putting together, of arranging and organizing the compound of analytical encounters and relations (150). Agency is distributed via the materiality of the body as a mutually constitutive communication with the materiality of the world, and assemblage becomes ever more vital a concept given it now resonates with the discovery of ever more nuanced understandings of body-brain material compositions (151). For example in *Animal's People*, the body of the protagonist is the channel through which toxic waste (once discarded as passive) has altered the body chemistry of the human. As he reminisces about his life before the disaster, he recalls how Ma Franci would take care of him as "if she were [his] real mother" (Sinha 14). She would tell him the instances of how he used to "enjoy swimming in the lakes behind the Kampani's factory" (14). He used to dive in the lakes with his "arms and [his] legs stretched out in one line" (14). Whenever she says this, Animal feels sad and angry as he still dreams of 'diving straight as a stick" into deep rivers and lakes and wants to leave

his “crooked shadow” behind (14). Once a healthy and hearty individual, Animal is now a crippled human being more like a real animal. The toxic waste, after permeating into the bodily boundaries, has altered the chemistry of his body which makes it evident that human interactions with toxic waste and countless other material agents can result in a number of bodily changes. Once they enter the human body, non-human substances (i.e. toxic waste in this case) permeate the body and reconfigure it from the inside. And as they interact, the body-toxin assemblages produce unexpected connections, recombinations and multiplicities of knowledge and action as they form, expand, and encounter other assemblages (1987).

However, the body-toxin assemblage in *Animal's People* does not only impact Animal; it affects the community around him. Since for Deleuze and Guattari, the assemblages are always breaking down, making new connections, being remade and made anew – a fluid dynamics out of which social realities emerge (1987). The novel also emphasizes the interconnectedness of human lives and the environment, suggesting that the toxins that invade Animal's body also disrupt the social fabric of his community. The effects of the chemical spill are felt collectively, creating a shared trauma that binds the characters together while simultaneously highlighting their individual struggles. The change in his bodily chemistry and form is also evident in the way Animal navigates the city and his relationships with other characters such as the journalist Nisha, the doctor, his nurse Ma Franci etc. It exemplifies how his identity is continually formed and reformed through these assemblages. The effect of the toxic waste lingers down the generation as “babies are born handicapped” and “mothers' milk is poisoned” by the contaminated ground water (Sinha 107). However, Khaufpur continues to resist the schemes of the

Kampani to deny justice to the affected. The indomitable spirit of Khaufpur is personified in Animal who sprints about the city on his callused hand and feet, mouths, obscenities, and dreams of love. Animal's friends are these irrepressible children of the *Apokalis* (Apocalypse) such as Zafar, the activist who almost fasts himself to death to bring justice to the Khaufpuris, and his fiancé, Nisha, who also happens to be Animal's object of desire.

There are other minor but equally unforgettable characters as on the night of explosion all people lost their “things, lives for sure, families, friends, health, jobs, in some cases their wits” (Sinha 37). All these characters and more make up the angry cacophony that is the voice of Khaufpur. Among the victims also includes Nisha's father, Pandit Somraj, who was once very famous throughout India. He had won many awards and honors and had acquired the label of “*Aawaaz-e-Khaufpur*, the Voice of Khaufpur” (Sinha 33). Similarly, Ma Franci was in her normal condition before the disaster of that night. She could speak and understand other language also, although she was French. Before that night all the creatures lived harmoniously, but the situation gets drastically altered over the course of just one night. Somraj, the brilliant singer called the ‘*Aawaaz-e-Khaufpur*’, his music is silenced by his burned-up lungs as the disaster took away his voice (155). After that accident, nobody has seen him smiling. Since the Kampani's poisons “tore his lungs”, and killed his wife and son, Somraj Pandit “rarely laughs”, nor does he sing aloud. As a result of his suffering and miserable condition, he makes songs that “he alone can hear” (155). In his younger days, Somraj used to sing “on the radio plus he gave concerts and the like” until that unfortunate night “took away his wife and baby son” and “fucked up his lungs” (33). Nisha never knew her mother or brother, so she says that when the Kampani not only stole away her “father's breath”, but also “stole his life”, because breath is the

“life of a singer”. After that night, he listens to other people’s songs but “never his own [records]” (33).

Similarly Ma Franci, Animal’s surrogate mother “lost all knowledge of Hindi” (Sinha 37). Before the explosion, she goes to sleep “knowing [French] as well as Khaufpuri”, but she wakes up in the middle of the night by a “wind full of poison” and “prophesying angles” (37). In that great “mela of death”, her mind gets wiped clean of “Hindi, and of *Inglis*” languages (37). Before, she had also been able to speak different other languages, but after that night she forgets all other languages except “her childhood speech of France” (37). There was another unexpected thread in Ma Franci’s madness, when she heard people talking in Khaufpuri tongues such as Oriya, Urdu, Tamil, Hindi, or English; she was unable to recognize them as languages. She thought them just to be “making stupid grunts and sounds” (37). After the disaster, she is compelled to live a lonely life because of her inability to communicate with others. Aftaab, another character in the novel seemed to recover at first, but later the reader comes to see that he is “too breathless to be able to do physical work” (85). His condition grows worse day by day. His eyes are affected, and he gets “rashes all over”, and suffers from recurrent “fevers and pains in his joints” (85). Nothing seems to counter the affect as Ma Franci asserts “Doctors are no use. Things are getting worse” (100). She recalls the old days when “people would talk properly to [her]”, but now “the Apokalis [has taken] away their speech” and she is unable to understand what people say to her (100). Traditionally, Western epistemology operates on the basis of a subject/ object divide in which the knowing subject looks out at a separate and independent material reality that corresponds to, or is represented by, the concepts and other epistemological data (beliefs, ideas, etc.) formed in his mind. In this schema, matter

is construed simply as the inert “stuff” of which the known, non-cognitive world is formed. However, this example indicates that toxins from the company have permeated into human body and have formed alliances with the human body. Consequently, the body chemistry of the people is altered. Therefore, matter (toxic waste) is not passive here; rather its agency has been enacted through the body-toxin assemblage.

Another defining distinction of the Deleuze-Guattarian assemblage is that its aim is not a totalization, a definitive tracing of limits, or a final theory of everything. It is rather an expansion of possibilities, an invention of new methods and new perspectives, an active ‘entertainment’ of things, feelings, ideas, and propositions that were previously unavailable to us (Shaviro 148–9). Along the same lines, I propound that toxic waste exerts its agency by making complex assemblages with both human/non-human bodies. The body/toxin assemblages in turn alter the body chemistry as Sinha expresses in the novel that the people ache, and their bodies are like “bottles into which fresh pain is poured” (100) day by day and they are unable to tolerate that pain.

Their misery could be observed while “their flesh is melting” (Sinha 100) and it seems that the flesh is “coming off their bones in flakes of fire” (100). The bodies of those people are so brutally damaged that their “bones [seem to be] burning” (100) and it looks like “they’re turning into light” (100) and their bodies might completely burn eventually. Sinha paints the apocalyptic imagery of Khaufpur in the words of Ma Franci when she asserts, “The Apokalis has begun, and the whole world’s full of it” (100). Bruno Latour’s term “actant” can be applied here for toxic waste, as an actant is a source of action that can be either human or nonhuman; it is that which has efficacy, can *do* things, has sufficient

coherence to make a difference, produce effects, alter the course of events (Latour 370). It is “any entity that modifies another entity in a trial,” something whose “competence is deduced from [its] performance” rather than posited in advance of the action (Bennett viii). For instance, in the novel, toxic waste produces effects in the bodies of human beings, and its agency is enacted in the way it permeates into the body and form ad-hoc groupings and assemblages. Similarly, Trans-corporeality denies the human subject the sovereign, central position (Alaimo 16), “nonhumans” (even beings without brains) emerge as partaking in the world’s active engagement in an ongoing performance of the world (Barad 149).

Toxic waste, which has been discarded by the Kampani on the grounds that it is ineffectual and inconsequential, has produced effects in the bodies of the people of Khaufpur, which establishes that agency does not preexist; rather it is agentially enacted and becomes determinately bounded and propertied within phenomena. Outside of particular agential intra-actions, it may be indeterminate. However, the moment it comes in contact with a permeable boundary of body, it forms body-toxin assemblages and the agency of the toxic material is enacted thereafter in the form of change in bodily chemistry in the form of diseases, and environmental contamination. Therefore, matter is not to be understood as a property of things but, like discursive practices, must be understood in more dynamic and productive terms—in terms of intra-activity (Barad 150). The role of matter is so significant that Barad labels the relationship between humans and other agents and material reality as being one of “intra-action,” as opposed to the traditional “interaction” (Barad 33). Agents, human and material, intra-act with each other to create specific material phenomena, therefore agency ceases to be feature of only subjects or

objects, because they do not pre-exist their active entanglement. Instead, agency becomes distributive.

To explain this further, I elaborate a few examples of the diseases caused by the body-toxin assemblages in the novel. Sinha describes an aggravating situation of a woman who has recently given birth to a child, and due to the toxic exposure, her skin has become “very dark, black almost” (Sinha 106) and her breasts are also “round and swollen” (106). She continues to press and dab her breasts with “slow fingers, sending jets of milk spurting onto the earth” (106) as she exclaims, “my breasts are killing me” but she denies to “feed [her] kid poison” (106). She leans forward to cast the last dribbles of her milk onto the ground. As the fellow women examine her breast milk, they exclaim it to be “muche thinne and watry” (107). They tell the doctor that her milk is “unnaturall” and “euill” because it contains “reddenesse”, and it “tasteth bitter”, so it might be “unwholesome” for the child (107). The baby “yeaxeth (hiccups)” ceaselessly and beyond control, informs the grandmother carrying the child (107). The condition of the woman is horrible, and in this case, the toxins have enacted their agency by permeating into the woman’s body, and altering the chemistry of her milk, thereby affecting both the mother and the baby. In addition to this, people are well aware of the fact that what gases “do to the lungs, to the eyes, to the uterus” (322). These toxic gages have also wreaked havoc with the reproductive cycles of female citizens. In Khaufpur, some young girls “bleed three times a month” and others get “one period in five months” (322). There is no cure to their horrific condition and no one is able to treat them properly. Likewise, there are a number of other characters in the novel for example Hanif who is “blinded and always coughing”; her granddaughter Aliya whose “lungs are inflamed”; and Shambhu who “hardly can breathe” (150). Also

there is Yusuf Omar, who has an ulcer which makes his “skin all around putrid” (150), and he is in continuous pain that “goes on day and night” (150). With this excruciating pain he “can’t think, [he] cannot read [his] prayers or work or sleep” (150). There are countless similar stories of other women in Khaufpur, for example, there is a woman named Sahara who is forty-six years old and lives in the city, one day “blood [comes] from her womb, it [is] cancer” and she dies right away across the road in front of her house (Sinha 109). Next to Sahara’s house lives Rafi, who spends “all he had on medicines” to cure himself from the illness caused by the toxic exposure but it does him no good and he too dies eventually (109). Similarly, there is a woman Nafisa who gets “a swelling and pain in her neck” and is unable to lift her arm. She feels the pain in a way as “someone [is] pulling her nerves from the inside” (109) and she dies soon after the diagnosis of the disease. Her cousin Safiya, who is her neighbor, also suffers from some “women’s problem” and she experiences severe pain like “she [is] losing a baby” (109). All these examples signify the movement across human corporealities suggesting how human bodies are always in the process of intra-acting with the nonhuman agents such as waste, where toxic waste ceases to be a mere backdrop. Rather the agential capacities are foregrounded and reflected in the way it forms body-toxin assemblages and alters the body chemistry of the host.

These incidents indicate that agency cannot be understood as emerging from a subject status, but rather emerges from its intra-actions in a web of relations in which bodies and environments are co-constituted (Alaimo 154). The examples mentioned here elaborate the interconnections, interchanges, and transits between human bodies and nonhuman; so human corporeality can be understood in terms of trans-corporeality, in which the human is always intermeshed with the more-than-human world, underlining the

extent to which the substance of the human is ultimately inseparable from the environment. It makes it difficult to pose nature as mere background since nature is always as close as one's own skin. Indeed, thinking across bodies may catalyze the recognition that the environment, which is too often imagined as inert, empty space or as a resource for human use, is, in fact, a world of fleshy beings with their own needs, claims, and actions. By emphasizing the movement across bodies, trans-corporeality reveals the interchanges and interconnections between various bodily natures (Alaimo 2); acknowledging the unpredictable and unwarranted movement of material agencies across bodies.

3.2.2 Material Enactment of Agency and Embodied Toxicity within Human/Non-human Intra-actions

Similarly, in *Gun Island*, the human and non-human characters face an existential threat due to the toxic effluents of an industrial refinery set up by capitalist elite at the heart of the mangrove forest known as Sundarbans. Due to the hazardous industrial waste, humans and animals are forced to migrate, which is the main subject of the novel. The connections between humans/animals and the toxic environments they inhabit are revealed through Deen's journey. As he navigates spaces impacted by pollution, he encounters individuals whose lives have been irrevocably altered by environmental degradation. The character of Nilima exemplifies this connection, as her knowledge of the ecological changes in her homeland informs Deen's understanding of his own identity. Their interactions highlight the ways in which toxic waste shapes not only physical environments but also social and cultural narratives. Nilima and Deen's journey serves as a poignant reminder that waste has the power to shape and alter the bodily experiences of the people.

In addition to humans, toxic waste and other chemicals also produce a number of effects in the non-human bodies such as animals, insects and birds. For example, *Gun Island* emphasizes how toxic waste causes the displacement of a sea creature i.e. dolphins found in Garjontola Island of Sundarbans, growing so far as it results in a phenomenon known as ‘beaching.’ One of the crucial characters of the novel, Piya, is an Indian-American scientist who works in the Sundarbans, tracking the Irrawaddy dolphins. Piya is shown to be very passionate about the well-being of marine animals, which has constantly been affected by waste decomposed by a local factory. She has specifically been studying an Irrawaddy dolphin named Rani, who is the oldest dolphin living in that pod and is said to be a “true matriarch” by Piya as Rani has “raised a dozen calves” (Ghosh 101), and her calves as the principal objects of her research. Piya, the researcher, and Rani, the dolphin, have developed a spiritual connection over the years and their relationship is quite strong and durable and it could be regarded by humans as “an old friendship” (101). As Rani goes missing one day, Piya launches an intensive investigation, examining the “pod’s favoured routes”, and she is distressed to find out Rani “entangled in a length of nylon netting” at one of their feeding spaces (Ghosh 101). As she rescues her, she implants a GPS tracker to get real time information about her movements. Piya observes that during the early days of her research the patterns and behaviors of movements “been regular and predictable”; but then their paths begin to change variably, becoming “increasingly erratic”; this has resulted due majorly to the “changes in the composition of waters of the Sundarbans” (101). As sea levels rise, and the flow of fresh water is reduced; salt water begins to “intrude deeper upstream”, which makes particular water stretches “too saline” for the dolphins to tolerate (102). They tend to avoid the water stretches “they had frequented before”; they also

gradually begin to “venture further and further upriver”, into more crowded and “heavily fished areas” (102). Piya observes that the pod has lost quite a few members over the last few years, and this change of habitat incurs “a huge source of stress for them” (106), as many animals die along the way. Piya asserts that the polluted water and the change in the composition of it is the reason why Rani and her pod have “abandoned their old hunting grounds” (106). She is certain that it is a “huge source of stress” for the dolphins (106). Piya compares their agony with that of humans and exclaims that what a great discomfort would be caused to them if they had to “abandon all the places that [they] know” and had been “forced to start all over again?” (106). She asserts that the whole situation must have been the most distressing for Rani because all the young ones depend on her. She had been “perfectly adapted to her environment” but over the course of time, things began to change drastically and “all those years of learning become useless” (106). Rani, who was well familiar before with the places that could sustain her, is now forced to “find new hunting grounds”. Rani must have experienced that the river, the currents, and her home earth is “rising up against her” (106). In the novel, Rani and her calves die due to “beaching” or “cetacean stranding” (293). While in Oregon, Piya receives a mail which makes her heart bleed as the message is composed like a news report and it informs her about a “mass beaching of dozens of Irrawaddy dolphins” at an island named Garjontola Sundarbans (192). Piya is convinced that the refinery is to blame as she cannot consider it unlikely that the mail is delivered by “a whistle blower in the refinery” (196), who must be aware of the “upcoming dump of effluents” (193). She thinks if this prediction is valid, then she might be capable of proving this intuition about “animal die-offs” (193) in the Sundarbans being associated with the “dumping of toxic effluents” (106). Consequently, that might help her

to make the authorities “shut down the refinery” (Ghosh 193). Piya had been watching the change in the animal pattern over the last few years in the area due to the pollution caused by the refinery. She had also informed the journalists on the cumulative consequences of the refinery such as “shoals of dead fish”, as well as “the decline of crab populations”, and so on (118-119).

Moreover, the refinery is polluting the waterways of Sundarbans. Piya thinks that it will be unfair and negligent of her if she allowed the “refinery” to get away with “poisoning the Sundarbans” (105). The refinery has been “dumping effluents in the rivers” causing massive “fish kill” in the waters of the Sundarbans (106). The inhabitants discover thousands of “dead fish floating” on the river surface or “washed up ashore” on day to day basis (106). Piya explains this phenomenon to the people that is happening all around the globe due largely to a huge amount of “chemicals flowing into rivers” (Ghosh 106). She blames the “refinery” for all this destruction and killings of the fish. Piya fears that the beaching of dolphins on this scale means that the survival of the whole species is in danger as she proclaims that she never heard of “beachings of Irrawaddy dolphins” to be a rare event on such large scale. There are hardly eighty to ninety members in that pod, so if “dozen of them die[s]”, then it indicates that this species “would not survive in this habitat” (Ghosh 192).

Similarly, in *Animal's People*, Animal also suspects that the prolonged contamination might not ensure the continuity of any life in the city of Khaufpur. There is “no bird song”, neither any “hoppers in the grass”, nor a “bee hum” could be heard around. Also it is impossible for the “insects [to] survive” there. The company has produced

“wonderful poisons” and it is not possible for any individual to “get rid of them”. Even after all these desolate years, they are “still doing their work” (Sinha 29). It is difficult to extrapolate if the regeneration of plants from the contaminated soil is an indication of the natural revival of soil fertility or if it is a counterintuitive signal that the toxic chemical will keep suppressing soil fertility. Moreover, a conversation between two citizens shows that the toxic chemicals from the factory have wiped out animal life from the neighborhood. One of the characters, Farouq, asserts that in heaven there are no insects. Hearing this, the other character named Zafar argues that in such case “Kampani’s dead factory” must be a kind of heaven because “it too has no insects” (Sinha 208). Similarly, Piya remarks very cleverly in Gun Island that we are currently living in a new world and no one is able to identify “where they belong” anymore, “neither humans nor animals” (Ghosh). The bodies of animals, that bear the burdens of anthropogenic contaminants, act as cultural imprints. Just like the embedded histories unveil the correspondences between the human and more-than-human worlds, we can envision all entities existing as embedded within the nexus of embodiment and surroundings, generating an ethics of compassion for diversity of living organisms and their ecosystems (Alaimo 110-111).

The body/toxin assemblages bring together human/animal bodies with toxic waste in heterogeneous and unforeseen ways. The assemblages is less concerned with what it is and more with what it can perform, what it can affect and engender (Deleuze and Guattari 4). So in Deleuze-Guattarian terminology, the assemblage functions not as a rigid concept but as a process of integrating, aligning, and structuring the compound of systematic engagements and associations (150). Since the human and animal bodies are permeable and prone to allow inter-changes with other bodies, it can be said that these bodies are

distinguished by “permeability,” “a constant exchange between inside and outside, by fluxes and flows, and by its close dependence on the surrounding environment” (Nash 12). This idea can be used to fuel a type of posthumanist environmentalist ethics in which instead of “a futile attempt to disentangle the human from the nonhuman,” we rather seek to cultivate more civil, nuanced and strategic “assemblages with the nonhumans” (Bennett 116). As it has been made very clear that toxic waste actualizes its agency through the bodies of humans and animals by making body/toxin assemblages, it becomes clear that agency is spread through the “materiality” of the body in the form of a “mutually constitutive” interaction with the material reality of the world (151), therefore, the materiality of this trans-corporeal body instead of being fixed or biologically essentialist unit, is dictated by the ongoing complex intra-action of social power and material/geographic forces (63). When the toxic waste forms connections with human and animal bodies through intra-actions, a trans-corporeal space is formed. It foregrounds the ongoing interweaving with the environment and, to the conception of an epistemological space that facilitates the conceptualization of a world where matter (toxic waste in this case) is seen not as passive or inert, rather vital, active and agentic.

Considering the self and the world to be interwoven can also generate a trans-corporeal post-human ecological thinking that establishes correlations instead of boundaries, and that embodies moral accountability from within global systems, transitions, and dynamics. Such as Barad endorses an ethics of “mattering” and “worlding,” which is concerned with the obligation and liability for the “lively relationalities of becoming” of which we are a part (392–393). The interwoven discourses in the novel, generated by the epistemologies of different characters (humans and nonhumans entities),

gradually uncover the material reality of human and non-human beings and their subversive interactions. Such as Michael Ziser argues that the non-human entities hold a minimum of a “quasi-agency” through which they can engender change in the narratives we allege to present solely from our human vantage points (3-4); implying the idea of a post-humanist agency which endorses that agency is not solely a human privilege. Rather, various bodily natures are always in constant entanglements with each other, and therefore agency is dispersed and diffused across both human and non-human natures; as we have seen in the chapter the number of ways in which agency of toxic waste is actualized via its intra-action with human and non-human bodies.

Chapter 4

The Capitalist Spatial Politics of Toxic Waste

In the previous chapter, I have outlined the pathway through which toxic waste, in the form of chemicals and contamination, enters into the human/animal bodies, forming assemblages and eventually altering their natures and identities. In this chapter, I connect the idea of spatial politics of environmental toxicity and unequal distribution of environmental risks to explore the root cause and nature of this contamination, which mainly involves the way capitalist corporations plant industries and dump toxic waste in the areas where marginalized communities live. This chapter aims to answer my second research question where I refer to Rob Nixon's concept of "slow violence" and Sarah Jacquette Ray's idea of "the ecological other,"⁷ to show the ways in which big corporate powers risk the lives of innocent people due to their negligence and greed. Therefore, when perilous material agents (for instance toxic waste, synthetic contaminants) permeate bodies; the altered bodies become material texts that tell the narratives of collective decision making, political preferences, and environmental pollution. Through the analysis of the selected novels *Animal's People* and *Gun Island*, I also outline the struggles of the marginalized groups in their pursuit of environmental justice; thereby implicating that while capitalist groups reap the benefits of their corporate projects, the environmental problems in the form of illnesses, bodily and environmental toxicity, and other disasters largely affect those communities who are at the opposite end.

⁷ In this thesis, I replace Ray's conceptualization ecological other i.e. disabled bodies with 'toxic bodies' to foreground the ways in which toxic bodies become ecological others.

4.1 Capitalist Greed and Spatial Politics of Environmental Toxicity

Masoud Movahed in World Economic Forum defines capitalism (market-driven profit-maximizing enterprise) as an economic system characterized by private ownership and profit maximization. As a result, it allows the owners to excel in what they are expert at yielding, and therefore, they can invest in the advanced infrastructure to enhance their growth and productivity (2016). However, its productivity is dependent on the utilization of the products which generates increased demands for more production. Therefore, it can be evaluated that large scale consumption is one of the essential tenets of capitalism as an economic system (Masoud 2016). In this chapter, however, I delineate the ways through which the neoliberal capitalist system is responsible for unequal distribution of environmental risks, and how the capitalist spatial politics puts the burden of political decisions on the poor and marginalized people. I also explain how capitalism's increased demand of production leads to subsequent accumulation and dumping of toxic waste and other effluents. I also accentuate how multinational corporations in association with the localized oligarchy not only encroach and commodify terrestrial and aquatic ecosystems but also disrupt them through dumping of toxic waste materials.

Situating my argument in the selected novels *Gun Island* and *Animal's People*, I argue that the planting industries and factories in specific areas is motivated by the capitalist desire of productivity and consumption, thereby enabling toxic waste by-products to be produced as well. However, by planting the factories and refineries in places where poor or marginalized classes reside, (since there is a little loss of social wealth), it can be established that dumping of waste in certain localities or communities is not what may

appear as a “casual act” is in fact systematically driven by a confluence of “social, cultural, and political” forces, including caste-based discrimination and religious stigmatization; as well as “normalization of socio-economic crisis [and] gender marginalization” (Dey 4) which Patricia Strach and Kathleen S. Sullivan philosophize as “politics of trash” (Strach and Sullivan 23). Consequently, the low-income or marginalized communities continue to bear the burden of political and social decisions, while the rich and elite procure the benefits as the industries disparately effect lower income communities through toxic waste, resource contamination, and land depletion.

However, since the consumers are not explicitly affected by these menaces that the marginalized groups are susceptible to, therefore there is no initiative to minimize consumption. Afflicted communities that are already subject to health hazards from the exposure to industrial pollution are less prone to be catered by the government policies. Ultimately, they are encumbered by what Robert D. Bullard terms as a “double whammy” referring to their suffering from increased health hazards and no government care (Bullard in “Overcoming Racism in Environmental Decision Making” n.p.). Furthermore, the issues of climate change and ecological deterioration are correlated with environmental injustice; as it places the marginalized communities liable to climatic problems and health concerns as a result of the contact with toxic chemicals and waste. Nonetheless, even if the people are capable to move away from the affected areas, the damage on the environment lingers on. The capitalist projects of economic expansion continue to aggrandize environmental pollution and the subaltern groups are the prime victims to encounter the perilous effects of climate change.

The selected novels *Animal's People* and *Gun Island* echo this spatial politics of environmental toxicity and the struggle for environment justice of the poor and marginalized communities of Khaufpur and Sundarbans. In *Gun Island*, for example, Ghosh explains how the local elite's industrial expansion and the subsequent unchecked waste disposal mechanisms have created a havoc for the inhabitants of Sundarbans, whose primary source of food, employment, and livelihood are dependent on the natural resources. Moreover, the situation becomes even more serious for the inhabitants because most of the communities that occupy the Sundarbans are socially and economically vulnerable, and therefore are not fully equipped to deal with the environmental crises at hand (Chakraborty 2009). Similarly, the novel *Animal's People* puts to light the stoicism of the Western capitalist system at the backdrop of the Bhopal disaster. Sinha narrates the struggle for environmental justice of the people of Khaufpur who await the American company to appear before the court. In the meantime, the people suffer from various physical and mental illnesses and other environmental catastrophes while the company makes no efforts for the reimbursement of the lost lives and livelihoods of people. Playing for time, the Kampani succumbs to legal hurdles, manipulation, and political bargaining with the help of backdoor deals with India's Minister of Poison Affairs and other government members and local stakeholders. Consequently, a legal battle between the "tenacity of corporeal memory and the corrosive power" (Nixon 68) emerges with little or no hope for justice for the local people.

The slow and gradual deterioration of the health, environment, loss of lives, and other changes in both the novels can be understood in the context of Nixon's idea of slow violence which he describes as a kind of violence taking place "gradually and out of sight;"

implying a postponed deterioration taking place over a period of time or “an attritional violence that is typically not viewed as violence at all” (16). Conventionally, violence is conceptualized as a happening that is temporally instantaneous, explosive, and spatially grand, thereby calling for an immediate spectacular visibility. However, Nixon recognizes the urgency of conceptualizing another kind of violence, “a violence that is neither spectacular nor instantaneous, but rather incremental and accretive, its calamitous repercussions playing out across a range of temporal scales” (Nixon 16), for instance the violence experienced (in the selected novels) by the marginalized communities due to their constant exposure to toxic environment; without any aid or facility provided by the government or other stakeholders.

In Sinha’s novel *Animal’s People*, an American Kampani has planted a factory in an economically marginalized area of Khaufpur where the minorities and poor populations reside. However, after the disaster, the American company left the country without appearing before the court or providing any reimbursement for the dead or injured. Instead the toxic waste produced by the disaster is used as an instrument to “overpower, marginalise, stigmatize, and erase” the groups, institutions, and the natural ecosystem (Dey 5). This vanishing of the company from the scene embodies the disparity between the suggested immovability of the environmentally marginalized communities and the ability of “movability” afforded to transnational corporations (Nixon 54). Although the factory planted by the Americans is vacated, but the invisible toxins remain volatile and robust. However, no work is being done to remove the aftermaths of the disaster. Animal tells the journalist that although a number of books have been written off about this place yet nothing has resulted in changing anything for the better. He plainly confronts the journalist

by saying that “you will [also] bleat like all the rest” (Sinha 3) suggesting that like so many other media representatives that have come here to extract the stories, this journalist is also a mere cog in the machine as he exclaims that on that night “it was poison”, but now “it’s the words that are choking [them]” (3); implying that nothing is happening on the ground. Animal also criticizes the commercialization and monetization of the disaster done by the media who plays the role of a mafia for their capitalist lords; they only come here to “suck out” the stories from them so that “strangers in far off countries can marvel there’s so much pain in the world” (Sinha 5). However, they do nothing notable to change the conditions of people, but have merely turned “Khaufpuris into storytellers” (5) but always of the same story. Due to the lingering toxicity in the environment, many inhabitants have suffered the loss of their health, mental and physical well-being, their livelihoods, and environment.

For instance, Animal and many similar characters have lost their families, and they are mentally, physically, emotionally and psychologically tormented. It in turn serves to set them apart as they present the “symbolic condensation” (Nixon 70) of the thousands of economically and socially abandoned people via the capitalist “logic of the neoliberal marketplace” (70). While discussing a similar problem, Armerio in his book *Wasteocene* also refers to this innate logic of capitalism where he suggests that “capitalist accumulation” works by the “political creation of sacrifice zones... [of] wasted people and places” (Armiero 2, 10). He further states that this *wasting* alludes to markedly more than just the debates around pollution and political inefficiency; rather it denotes the inherently nonsensical and appalling logic behind depreciating human and more-than-human lives under the binary of value/non-value (Moore 2017). Therefore, Armerio’s conception of waste does not only refer to a set of poisonous substances per se; instead it hints at a

dialectic and discursive process; indicating a course of action vis-à-vis class struggle and oppression. As a result, he tends to imply that waste is not; it *becomes* (Zimmermann 814-15). This capitalist logic of wasting is clearly visible in both the selected texts.

For instance, in *Gun Island*, Ghosh endeavors to highlight the everyday struggles of the inhabitants of Sundarbans who navigate their lives amidst the insane climatic and environmental conditions escalated by rapid industrialization and commercial expansion of the area. In the novel, Ghosh states that Sundarbans is the gateway where commerce and the wilderness coincide, and where the “war between profit and nature is fought” (9). The historical and mythical Sundarbans, however, has become demonic in the 21st century as half of its islands have been wiped away in the name of capitalist industrialization and development. The continuous land encroachment, deforestation, and planting and dumping of industries has resulted in various and frequent environmental havocs. For example, Piya tells Deen about the formation of oceanic dead zones in the rivers, which are formed due to low oxygen content. She also warns that these dead zones are multiplying at a very alarming rate, and as a result, many aquatic species such as fish are unable to receive the required oxygen to survive. She is not exactly sure of the causes but it is highly probable that the culprit is a refinery which was established here a couple of years ago and the residues from its chemical fertilizers are causing the change in the ecosystem. Piya tells him that they have been battling for the trust and an alliance of environmental groups for the past couple of years; but they are confronted by a very powerful group “a giant conglomerate that’s got politicians in its pocket on both sides of the border” (Ghosh 105). Since they are powerful people, they organized a campaign against them, and even pursued to withhold their funding. They even tried to arrest the protestors by assaulting and

attacking them, not just with the help of police forces but also with hired enforcers (Ghosh 105). They also harass them online via death threats and hateful trolling (Ghosh 105). Moreover, when the toxic effluents seep into the rivers and other marine bodies, they do not only harm the marine life, but also impact the health conditions of the people who consume the water.

4.1.1 Manufacturing Marginality: The Socioeconomic Logics of Industrial Plantations and Toxic Waste

With the help of the above discussion, it is also noted that the planting of the industries in specific areas is a systematic and political act because the people living in these areas lack the needed resources to fight the capitalist mafia. They are already impoverished, struggling to make both ends meet, so they become the principal casualties of systemic and structural environmental violence (Nixon). It further implicates that the genealogy of today's Environmentalism of the Rich can be traced back to the emergence of capitalism which Armerio calls as "a history of waste: of pollution and toxification; of imperial power and militarized accumulation which activates the historical logic of producing wasted people and wasted places" (10), and "slow violence" (Nixon) which Sayan Dey in his monograph *Garbocracy: Towards a Great Human Collapse* also outlines. He explains the processes of stigmatization of certain communities are solidified by suffocating people and the natural environments they inhabit to death by systematically exposing them to noxious and discarded chemicals; which in turn pollutes their natural environments such as waterways, land, and air.

However, Dey argues that this “translocationality” of the producing and distributing toxic waste is scrupulously reinforced by the variables of “race, ethnicities, colour, religious affiliation, cultural heritage, or political learnings” (R. Ghosh 121). This phenomenon can be further analyzed in *Animal’s People* where “the physicality and opticality of [toxic waste] invades, entangles, percolates, and mutates physically and ideologically with humans and reconfigures human beings as ‘garbo- beings’ (Dey 6). The novel is replete with narrative incidents where toxic waste from the factory disaster invades in the very matrix of Khaufpur: “No bird song. No hoppers in the grass. No bee hum. Insects can’t survive here” (Sinha 29). It seems very difficult to get rid of the poisonous chemicals that the Kampani had manufactured and after so many years the poisons are “still doing their work”; even animals are also badly affected by it as “dogs have foaming mouths...” (Sinha 30). The incidents from the novel foreground the magnitude and extent to which slow violence has resulted in the transformation of the whole landscape of Khaufpur as the aftershocks linger even after decades. For instance Animal laments the aftermaths of the disaster that linger even after the decades as he says “all that’s left now is its skeleton. Platforms, ladders and railings are corroding” (Sinha 30), alarming the authorities that “if the dry grasses inside the factory ever caught light, if fire reached these brown lumps, poison gases would gush out, it’d be that night all over again” (30). These incidents show the translocationality and mobility of toxic waste and other chemicals, which has pervaded in the very matrix of Khaufpur, and not only people, but the land and environment, is also at stake.

Moreover, *Animal’s People* also narrates the instances where garbage and waste is forcibly thrown in the city of Khaufpur by the company, with a complete and utter disregard

to the community's social, cultural, psychological, and physical well-being and health. This phenomenon can be explained via's Dey's theorization of a 'garbage contract' which he defines as a "complex, invisible, and abusive" socio-political consensus between "commercial organizations [and] political institutions", systems of class, caste, religion, attitudes, lifestyles, and material waste. This arrangement sustains the paradoxical "presence and absence of garbage" in certain public spaces and generates "economically transactional relationships" between humans and waste (Dey 25-26). The relationships are systemically, epistemically, and ontologically maintained. Furthermore, on the one hand, the contract allows specific privileged communities to continue with their exploitative practices in society and socioeconomically underprivileged communities to become financially self- dependent at the cost of submitting, suffering, suffocating, and dying; on the other hand, it gradually allows wastes to regulate the functions and the transactions (Haraway 159). The contract also creates a "state of indecisive action" (Robinson 32) which is underlined with mutual performances of casualness, insincerity, ignorance, derision and hierarchies (25-26). This phenomenon is clearly visible in the novel as Animal laments how every place is "covered in shit and plastic"; and it can be observed how "poor and disgusting" their lives are (Sinha 106). People of Khaufpur put up with these regimes of toxic waste every day as the communities in this city cope up with open sewage systems with waste and garbage floating everywhere. The waste has also seeped in the waterways and even wells which is poisoning the health of people including unborn and newborn babies. To make it even worse, the politicians and other government authorities are not doing their jobs (Sinha 151). Like waste, the human bodies, psyches, and intellectualities are rejected, erased, and disposed of, making them "invisible by not looking and

unthinkable by not thinking" (Z. Bauman 27); suggesting the invisibility of the economically impoverished communities.

Moreover, other instances from the novel also point out to the politics of dumping waste as Animal recalls the time when he would go for swimming as a child. He recalls how the Kampani bulldozers used to dump all the factory waste in the nearby lakes, and the water in them is now poisoned (16). Such an experience outlines that the act of perceiving garbage being thrown away and put to a "final resting place" (Nagle 26) is "emphatic and vague" (Nagle 32). Garbage is not thrown away, but in the act of throwing away, wastes are consciously and unconsciously distributed and spatialized across residential areas and natural environments (Dey 20). Besides ignorance, the imperialistic character of garbage has also been shaped by spatializing the disposal process in definite socio-political ways. For example, the above anecdote by Animal elaborates on the politics of spatialization in which waste is disposed of in certain areas where poor, marginalized, or economically impoverished classes live. In Nixon's words, these people bear the principal fatalities of slow violence because their unnoticed poverty is aggravated by the "invisibility" (17) of the slow violence that pervades every aspect of their lives. This socially, culturally, and religiously motivated unequal disposal of wastes has given rise to unequally spatialized garbage kingdoms, which are a "kind of archipelago – patchy, uneven, and not necessarily coherent" (Lepawsky 2018: 15). These kingdoms are physical as well as cognitive in nature where specific communities are forced to "acquire a porous interchangeability with pollution (Patranobish 2023: 42), making them the principal victims of Nixon's slow violence.

4.2 Environmental Justice: Bodies as Material Texts and Social Palimpsests

As outlined in the first part of the chapter, through unequal distribution of environmental risks and spatial politics of environmental toxicity (i.e. planting industries and dumping waste in certain localities), capitalist corporations in collaboration with local elites are responsible for the slow deterioration of certain communities. In this part of the chapter, however, I establish the mechanisms through which the ‘body’ becomes the site through the processes of marginalization and slow violence of certain communities are enabled. As a result, the ‘disabled body’ as explained by Ray in her book *The Ecological Other*, becomes the “consummate ecological other” (19) suggesting a corporeal and bodily foundation in analysing the mechanism of environmental exclusion. Through her analysis of corporeal politics, Ray argues that the disabled body becomes the prototype of humanity’s estrangement from nature; in turn reinforcing other kinds of “ecological-othering such as racial, sexual, class, and gendered othering within the mainstream environmental movement” (19). In this thesis, however, I replace Ray’s ‘disabled bodies’ with my definition of ‘toxic bodies’ to foreground how bodies, while coming in contact with material toxins in the form of toxic industrial effluents, waste, and chemicals, become not only ecological others, but the bodies themselves become material texts and social palimpsests which narrate the tales of environmental injustice and marginalization.

The selected novels represent the bodies of human beings and non-humans in the configurations of deformation, disease, mobility, and weakness due to their contaminated enactment with toxic waste and chemicals. For example, in *Animal’s People*, the victims of the Bhopal disaster endure a number of physical deformities and other diseases which

distort their bodies. As a result of the expansive toxicity lingering in the environment, the warped bodies become what Michelle Murphy refers to as “chemical embodiment[s]” (Murphy 696) or “toxic embodiments” (Cielemęcka and Åsberg 101). The toxicity and poison lingers in the city as the characters in *Animal’s People* are bearing the brunt of the company’s disaster years after the incident. We see victims helplessly fighting with, and navigating the circumstances. According to Nixon, Animal’s twisted bodily configuration personifies a dehumanizing, neoliberal economic relationship which guarantees him a “lowlife” status; where he is considered a social outsider and his external physical posture symbolizes the slow violence (Nixon 72); therefore suggesting that corporeal dynamics is pertinent in understanding the political and social marginalization.

For example Animal’s very apparent physical bodily deterioration also signifies the disaster’s life-long impacts on the embodied experiences of the character when he recalls “I used to be human once. I used to walk upright” (Sinha 1). The disaster of that night has caused Animal to lose his very humanity which is visible in the shape of his body as he looks at his “twisted feet” which are a “little bent to one side” (13). At times when he feels hunger, he would break off the lumps of his “dry, thick and cracked” skin and “chew it” (13). However, Sinha explains the stark contrast of Animal’s deteriorated physical state before and after the disaster to paint a compelling picture of the effects of the disaster on the bodies, as Animal recalls the time when he used to enjoy swimming in the lake by diving in the water with his “arms and legs stretched in one line” (14). However, after the disaster, he can only dream of diving “straight as a stick” into deep water leaving his “crooked shadow behind” (14). This change in Animal’s bodily shape and chemistry defines what Ray attempts to explain in her book *The Ecological Other* that the disabled

bodies (or toxic bodies in this case) become the ultimate ecological others, bearing the scars of the unchecked capitalist and political decisions.

The significance of the body in environmental justice narratives and discourses can be observed in the articulation whereby “environmental purity” is depicted as “bodily wholeness and health”, whereas “environmental toxicity” is calculated at the “level of the body” (Ray 19). As a result, many eco-critics and scholars concerned with environmental justice are aimed at foregrounding the notion of body in environmental narratives as they believe that “the body is the first environment,” suggesting that environment can be better understood via body (Ray 19). Therefore, a number of environmental justice scholars emphasize that the well-being of the body is proportional to accessing ecological quality such as Richard Lewontin and Richard Levins argue that our body is well aware of our “class position” irrespective of how much we have been “taught to deny it” (qtd. in *Bodily Natures* 27). Therefore, it can be established that the body, ultimately, becomes the primary site through which the mechanisms for environmental injustice can be enacted, and therefore reading the body offers principal investigation into the horrors of toxification and unjust political decisions.

Therefore, as one observes the picture of the altered bodily state of different characters in Sinha’s novel for example Animal, which he himself explains as even “the ghosts run away from my twisted shape” (Sinha 30). Similarly there is Ma Franci who lost all knowledge of the languages she knew as she was “wiped clean” of Hindi and English except her childhood language French (37). There is also a character of Nisha’s father Somraj, who was known as Awaz-e-Khaufpur, lost his voice so he could not sing anymore;

and thousands of other half-alive, half-dead people in *Animal's People* who are waiting for justice to be served, and are “sprawled in the roads”; some are even “leaning half upright in doorways”; the mouths of those people are open and they are “singing out of their throats” (274). One can hear the “death raga” sung by those people which “pours in green gust” (274). Their songs indicate that the “good earth has been defiled with blood” as the author maintains that the blood of these half-dead people “cries out for justice” (274) but the justice seems to be denied to them. This detailed imagery by Sinha signifies the toxic bodies’ subjection to the dangers of unjust political decisions, marginalization, and injustice. The novel further brings to light how the body becomes the site for ecological marginalization as at one point, Zafar expresses the plight of the victims who “queue all day to be seen” but the doctor does not examine them because “to touch a poor person would pollute him” (24). Even if he examines, he just writes a prescription and asks the victims to buy so and so medicine, however, the medicines are supposed to be given free. In this way, the doctors and other political rulers “make money out of [the people’s] misery” (24). These excerpts from the novel make it very clear that the ‘toxic’ bodies of the poison victims ultimately become the ecological others who embody the consequences of unjust political actions.

The body is always in contact with the environment it inhabits. Therefore toxic environments have the ability to easily produce a number of unintended reactions in the form of bodily disabilities and deformities. This is also the case in *Animal's People* where people suffer from a variety of strange illness as a result of the exposure to toxins in the environment such as eye sores; lung diseases (like the character Somraj, who cannot sing anymore); or pre-birth deformities in the womb (i.e. almost half of the pregnant women

were forced to abort on the night of the factory disaster, and those children who were somehow born were deformed). Therefore, it can be evaluated that the slow violence causes “bioaccumulation” a process via which various toxins such as industrial waste or chemicals accumulate in living tissues (Cielemęcka and Åsberg 101). Hence, the ramifications of the trans-corporeal trafficking between the toxic environment and bodies can be dangerous.

For example, Elizabeth Grosz elucidates that environmental illness proposes a formidable example to conceptualize a transcorporeal space which posits that the body can never be separated from the material world (Grosz 24). It can be observed in the novel that it is when the bodies began to enact the dangers of the poisons and toxicity that the people of Khaufpur begin to realize that “the Apokalis has already begun. It started on that night in Khaufpur” (Sinha 63). Industrial toxins have penetrated not only in the soil, air, water of Khaufpur but also in the bodies of humans and animals; even affecting their DNA and gene makeup. People are even afraid to increase their progeny as a character in the novel tells Zafar that he always wanted to have kids but he is afraid of his children growing up here where the poison is not only in the soil and water of Khaufpur but also in “people’s hearts” (196). People are afraid to have children as a number of unborn babies are also suffering. For example, there is also a depiction of infective well water in the novel, which is absorbed in the women’s bodies and thereby infects their breast milk (Sinha 107–108). On that night, the people of Khaufpur experienced a kind of terror that transcends any dictionary definition as people constantly feel “extreme fear, violent dread”, and are unable to predict what “horrors might yet emerge in their bodies” (Sinha 283). The Kampani, however, has turned a blind eye to their suffering because its overlords are sitting in America with everything in their pocket from wealth to strong aides in the military and

political government (54) while the poor people of Khaufpur have nothing; not even “an unton shirt to wear... no money for lawyer and PR... no influential friends” (54). The people already know that getting justice from them is very difficult, almost far-fetched so they proclaim “Nous sommes le peuple de l’Apokalis... We are the people of the Apokalis” (63); and tomorrow there will be more like them.

4.2.1 The Politics of Ignorance: Probing Class, Race, and Corporeal Othering in Environmental Discourse

The selected novels also stages a simultaneous critical inquiry into the class based distinctions between the rich and the poor. The division however goes far more deeply than only economics. It is rather a systemic and political divide which separates people on the basis of those who can defend themselves and those who have no choice but to suffer from the inequitable economic decisions of their overlords (Nixon 69). For instance, the “epistemologies of ignorance” (Steyn 10) by the capitalist powers in the novel can be further understood through the situation of the court appeal Khaufpuris have registered against the American company which has been dragging on endless years. The delays and procrastination on the company’s part has made the life in Khaufpur uninhabitable. They plead the company to at least clean the factory as its poisonous waste material has reached “the wells...in people’s blood... [as well as] in mother’s milk” (Sinha 322). The accused Americans have not shown up for the last eighteen years nor did they send their lawyers to represent them; thus the trial continues to drag on and the justice is also “delayed and denied” (Sinha 52). The disaster of that night has resulted in the deaths of a number of people but no justice has been served. By embodying the tragic experiences of the affected

people, the novel discloses the dissimilar timelines and multiple rates of environmental terror which comes to life in different stages i.e. the particular disaster which result in multiple casualties; the horrific fire explosion that happens after a number of years when the abandoned but polluted disaster site rekindles; replicating the casualties that took place initially. As a result, the horror multiplies into its own versions of “seasonal rhythms of heightened risk” (Nixon 78) as the people navigate their way through the chaos.

Simha describes the factory explosion as a "crime", and colloquial phrases such as "Kampani-style lie" (Sinha 234) show the company's widespread corruption and negligence that resulted in several environmental catastrophes. Sinha criticizes the American factory's prolonged ignorance and the local people's failure to gain environmental justice as the people of Khaufpur are poor and economically impoverished while their opponents are rich and powerful. They are so poor that “thirty-three thousands of them together could not afford one Amrikan lawyer, the Kampani can afford thirty-three thousand lawyers” (228). For the company, the indigenous people are considered nameless ‘others’ who are left to deal with the consequences of the disaster on their own. Khaufpur’s catastrophe can be read as “absentee corporate colonialism” (Nixon 69) where the multinational capitalist companies reap the benefits from the projects initiated in the Global South but “externalize risks” (69). Like the people of Khaufpur demand the decontamination of their land and rivers, and a proper reimbursement to the injured, and those whose health is tumbled down due to inhaling the poisons of the factory. But the owners of the company refuse to return.

Similarly, Ghosh's novel *Gun Island* also explores the concept of environmental justice and the marginalization of people enacted through their bodies. The novel depicts the struggles of displaced people and vulnerable communities of Sundarbans; who struggle to survive in the harsh living conditions of Sundarbans due to unchecked capitalist and corporate expansion. The bodies of both animals and humans, in the novel, are at the receiving end as they transfigure their living patterns amidst the ravaged landscapes. There are several indications in the novel that depict how bodies become the sites for marginalization for example Moyna tells Deen about the plight of several women from Sundarbans who have been forced to work as sex workers after the horrific disaster of Cyclone Aila. Moyna explains that the region of Sundarbans has always been a home ground for traffickers pertaining to its poverty. However, the number has increased after Aila where they aroused abundantly, taking off women to remote brothels and forcing young men to work in cities and even abroad (Ghosh 53). Therefore, the transportation of marginalized men and women to far off lands away from their homes indicates the mechanisms through which *othering* is enacted via corporeal bodies. As a result, it becomes an embodied experience whereby the body becomes the site of not only marginalization, but also a testament of the broader configurations through which violence is enabled. The bodies, therefore, become the material texts on which the mechanisms of othering are imprinted.

In addition to the human bodies, the novel also enfolds how the toxicity pervades and seeps in the bodies of non-humans such as animals. For example, Piya observes the beachings of Irrawaddy dolphins in the rivers of Sundarbans which she calls as a very rare event to occur; something that is unheard of in this area. She explains the population of this

species in the Indian subcontinent is not more than eighty or ninety dolphins, so their deaths on large scale imply that the species is incapable of surviving in this ecosystem (Ghosh 192). Piya co-relates this event to the dumping of toxic effluents in the waterways by the refinery in Sundarbans. Therefore she believes that if she succeeds in proving that these deaths are somehow linked to the dumping of toxic effluents by the refinery, the refinery can be shut down permanently. However, this is a huge task since she is fighting against a giant corporate mafia who has politicians in one pocket and money in the other (Ghosh 146). Similarly, the people of Sundarbans have reported several other cases which they have never seen before for example massive fish kills, migration and beaching of dolphins etc.

Moreover, the results of unchecked environmental exploitation through corporeal othering are further explicated by Ghosh through the explanation of the plight of climate refugees in the novel who are forced to migrate or evacuate from Sundarbans due to its harsh living conditions due to climate deterioration and subsequent natural and man-made disasters. While suggesting that the repercussions of climate change are not evenly distributed around the world, *Gun Island* shows that the people who are most susceptible to the effects of climate change suffer the most during environmental crises. Moyna, for example, further explains Deen that life in Sundarbans is getting more and more difficult as it seems that the environmental landscape is revolting against the people. For example, when people try to dig wells, “an arsenic-laced brew gushed out of the soil” (Ghosh 53); when they try to create embankments on the shores of the river, the currents rise and erode them (53). Moreover, the fishermen are also unable to catch fish which once were very abundant in the rivers (53). Without any help or support from the local agents or governmental representatives, the people had only one solution left for themselves; the

mass exodus. Moyna explains that most of the people who are migrating from Sundarbans are young and it is accelerating every year. In their desperation to leave this regions, some people are making use of illegal means to slip into the borders of Bangladesh to join other gangs going to Gulf. And if they did not succeed, they would pay human smugglers to smuggle them to Malaysia or Indonesia via hidden sea routes (53). Ghosh attempts to highlight that climate change is not just an environmental problem but is exacerbating social and economic inequalities. Ghosh sheds light on the mass migrations and evacuations of the people from Sundarbans as the climatic conditions have caused the area to become almost uninhabitable. Once fertile lands have been turned to barren fields due to salination, making them “uncultivable for a generation, if not forever” (53). These examples from the novel show the stunning effects of climate change caused by the rapid industrialization of the area by the capitalist corporations. In their pursuit of wealth and profit, they have destroyed the livelihood of thousands of people of Sundarbans as it is getting difficult for people to survive in the lands where they grew up.

The novel further foregrounds the moral and ethical implications of environmental injustice and concerns itself with social, racial, and historical injustices, drawing attention to the role of present-day global capitalism in escalating the climate crisis. It further explains how capitalist control and transformation of ecologies happens through the dislocation of human and nonhuman entities. The elite groups take control of natural resources and convert them into industrial products or commodities, as depicted in *Gun Island*. Therefore, state-endorsed commercialization of forests and large water bodies creates a widening gap between the state and its poorest subjects. The people, already living in marginalized conditions, become the principal casualties of this violence. Ghosh paints

a clear picture of how natural disasters such as flooding and rising sea levels affect the lives of the poor living in coastal areas. These communities are already socially and economically disadvantaged, and lack of resources needed to cope with these disasters has forced many people to leave their homes and land (Dew 2020). For example, in the initial chapters of the novel, Ghosh narrates the casualties caused by the Bhola cyclone which is termed as the “greatest disaster of twentieth century” (13). He further explains the magnitude of the disaster as people saw extremely horrifying spectacles of the islands in which every single “tress had been stripped of its leaves”; there are also “corpses [that could be seen] floating in the water, half eaten by animals”; and the towns that had “lost most of their inhabitants” (Ghosh 14). As a result, people resort to illegal means to migrate from the environmentally ravaged locations. Consequently, they become climate refugees, political outcasts and social others; the nameless and homeless others.

For example, in *Gun Island*, Ghosh brings to the fore the tragic tales of illegal migration through the two characters Tipu and his friend Rafi. Tipu and Rafi, along with many other illegal migrants, fall victims to human trafficking which aims at “material gains from the illegal crossing of international borders” (Yahya 2). Rafi narrates his horrific experiences of the perilous journey from the Sundarbans with Tipu. Tipu prearranged their travel with the aid of some dalals from Bangladesh. They were first taken to Dhaka. Then from Dhaka they were brought to Kolkata and were kept locked and hidden in a “connection house” (Ghosh 268) in unhygienic conditions. If someone would complain or ask too many questions, that hapless victim would have been “slapped or beaten; sometimes the jackals would hit” (258) with pistol butts. These stories of illegal migration and forced mobility make it evident how the bodies of the principal characters become the

others in the process, while they continue to live without receiving any hope of justice or rehabilitation. These excerpts outline how capitalist spatial politics and unequal distribution of environmental risks results in the corporeal othering of bodies while pointing out that the “same structural forces that result in the contamination of nature also contaminate its inhabitants’ bodies” (Ray 20). Therefore, by articulating a mutual relationality between body and environment, environmental justice argues that the industrial expansion and capitalist activities which result in environmental degradation also risk the health and optimal corporeal functioning of the people (20). By making a basis for corporeal ecology (Ray 2), Ray’s insights offer a critical inquiry into the embodied experiences of the characters in the both the novels, and outlines how the altered bodies become the material texts for unjust political actions.

As a result, the transformation, modification and toxification of bodies in both novels through unjust political decisions and unchecked corporate and capitalist expansion show a shift from displacement and modification of bodies to their toxification and demolition. Both the selected novels reject the construction of environmental problems as if they affect the societies uniformly “without great differences in culture and experience or power and access to material influence” (Anthony, qtd. in Chase 352). As a result, the universalization of human experience often ignores the unequal racial, gendered and other power structures that shape the relationship of people with environment. Therefore, in order to theorize ecological others, environmental justice scholars insist that the structural forces that result in the contamination of environment also contaminate its inhabitants’ bodies. Environmental justice narratives thus charge that bodies of the inhabitants must be read in order to understand the mechanisms through which capitalist corporates enact

social, political and environmental injustices. This phenomenon can also be understood in terms of Alaimo's 'transcorporeality' which posits that human reality is always enmeshed with the more-than-human world; foregrounding that "the substance of the human is ultimately inseparable from the environment" (2). The bodies, in this capacity, are a part of the environment and any structural decision about the environment impacts the bodies, therefore the bodies can act as the principal object of analysis. Moreover, Alaimo's "thinking/movement across bodies" (2) also underscores the idea that environment which is often perceived as inert and an object for human utility is in reality a "world of fleshy beings" (2); suggesting the capacity of substance to connect and interconnect with bodily natures.

Chapter 5

Conclusion

My thesis began with the critique of the anthropocentric capitalist conception of waste as inconsequential and unimportant; devoid of any agentic power. However, the “phallocentric and anthropocentric” (Plumwood 7) reading of matter has been rejected in this thesis by tracing the after-life of toxic waste from production to consumption to dumping and entering into the human/animal bodies, forming assemblages and eventually altering their natures and identities. I had selected two novels: Sinha’s *Animal’s People* and Ghosh’s *Gun Island* to establish the ways in which toxic waste actualizes its agency by forming body/toxin assemblages. I had foregrounded my argument in the debates surrounding spatial capitalist politics of dominant groups to identify the ways in which the toxic bodies become ecological others i.e. the material texts of social, political, and ecological marginalization. Largely, I drew upon Barad’s concept of Agential Realism, Alaimo’s concept of Trans-corporeality, Deleuze and Guattari’s idea of assemblages, Nixon’s slow violence, and Ray’s theorization of ecological others.

My first research objective was to investigate the ways in which body/toxin assemblage transforms human/non-human relations. In order to address that, I focused on Barad’s account of intra-action and Alaimo’s transcorporeality. By doing so, I debunked the humanist account of agency where the idea of non-human agency is deemed as uncritical as agency is commonly viewed in terms of subjectivity and intentionality. However, Barad puts forth a view called “agential realism,” which holds that matter has agency and is interconnected with human knowers, shaped by them and shaping them as

well. In this thesis, building upon the foundation provided by Barad, I have foregrounded the agency of toxic waste in order to prove that it is more than just a passive pile of matter.

For example, in Chapter 3 titled “Body-Toxin Assemblages and Non-human Agencies,” I have explored the ways in which toxic waste functions as a powerful substance with the capacity to produce change in *Animal’s People* by Sinha and *Gun Island* by Ghosh. I have analyzed the ways in which these texts illustrate the dynamic interplay between humans and toxic substances, highlighting instances where toxic waste exerts its agency as an active entity. In so doing, I outlined how agency can be understood as an enactment, and not something someone has rather as “distributed over nonhuman as well as human forms” (Barad 214-215). As a result of this theorization, agency is not viewed in terms of ownership but in terms of “intra-activity” (Barad 150) suggesting that bodies do not simple exist, rather they are the result of intra-active co-constitution, thereby implying a more dynamic and productive connotation.

With the help of textual analysis of *Animal’s People* and *Gun Island* in Chapter 3 and 4, I have explored how toxic waste, when comes in contact with the bodies of human/nonhumans, exerts its agency and makes body-toxin assemblages. It therefore not only damages individuals but also reimagines social relationships and community dynamics. For instance, Sinha’s *Animal’s People*, at the backdrop of the Bhopal disaster, serves as a powerful example of this concept of material agency of toxic waste. The novel centers on the consequences the toxic waste released by the Union Carbide plant that infiltrates the lives of the residents of Khaufpur; fundamentally altering their existence and shaping their collective identity. The protagonist, Animal, embodies the consequences of

this toxic environment. His physical deformities, resulting from exposure to hazardous substances, symbolize the direct and insidious impact of the disaster. The body of Animal served to be my principal object of analysis; in addition to the bodies of Khaufpur's other residents as well as animals, and the environment. The novel provides many instances where the agency of the toxic waste left behind by the factory could be pointed out. Moreover, the toxicity of the mutilated environment also results in a number of physical impairment in the survivors, mostly the poor people who were directly exposed to the toxicity.

The cited examples from the text propose a post-humanist definition of bodily materiality as opposed to the traditional idea of a bounded, perfect human body. The agency of the toxic substances, after coming in contact with the human body, subscribes to the post-humanist agency projected by Barad, Alaimo and other material eco-critics which holds that agency is not to be intrinsically and solely linked to human beings and human intentionality, rather it is an inherent and widespread characteristic of matter, as part and parcel of its generative dynamism (Barad 132). The production, disposal and management of waste evidently contributes to playing a key role in acknowledging this connectedness. The discharge of chemical toxins shows the relationality of the human body with the environment in which it is situated.

Similarly, in *Gun Island*, toxic waste comes to the fore as a crucial agent in the migration narrative, shaping the lives of characters and influencing their trajectories. The protagonist begins a journey that uncovers the impact of environmental degradation on individual and communal identities. Throughout his travels, he encounters different areas

devastated by pollution, underpinning the ways in which toxic environments derange lives and force individuals to traverse a world filled with uncertainty. The toxic waste that occupies the area serves as a prompt of the repercussions of unchecked industrialization. The pollution does not merely change the landscape; it restructures the very fabric of the protagonist's memories and connections to that place. Ghosh foregrounds Alaimo's notion of transcorporeality, illustrating how the presence of toxic substances shapes personal narratives and collective histories.

I have also referred to Bennett's theory of vibrant matter which helps us in understanding that non-human entities hold a form of agency that can determine human experiences and social structures. She argues that matter is not passive; it is vibrant and alive with potential, capable of enacting change. By foregrounding the status of inert matter, I have argued that toxic waste also holds significant material character as mentioned in Bennett's *Vibrant Matter* i.e. the way it contacts with dumpsites and other landfills points out to its "Thing-Power" (Bennet 3) which is "the curious ability of non-living things to vitalize, to act, to produce effects dramatic and subtle" (Bennet 3). It suggests that toxic waste is not devoid of any agentic power, but it actualizes its agency by coming in contact with dumpsites and landfills.

Moreover, in order to demonstrate the way through which toxic waste materializes its agency, I have drawn upon Deleuze and Guattari's concept of assemblages and Alaimo's concept of Transcorporeality to propose that toxic waste substantiates its agency by establishing assemblages with human and non-human bodies and expresses its agentic power through the body of humans and animals. Like Barad's agential realism, Alaimo's

idea of trans-corporeality also foregrounds human experience as intricately tied to the “flows of substances and the agencies of environments” (476). Alaimo argues that human body and the environment in which it is situated are inseparable, influencing and structuring each other.

The framework of intra-actions, transcorporeality, and body-toxin assemblages has provided a significant lens through which to explore the relationships between toxic waste, human bodies, and social structures as it is harmoniously integrated to *Animal's People* and *Gun Island*, where the interactions between humans and toxic substances uncover the complex dynamics of agency and change, resulting in a number of consequences. Both the selected novels *Animal's People* and *Gun Island* have revealed the relationship between the inhabitants of Khaufpur and Sundarbans, and the toxic environment which is characterized by a profound sense of entanglement. The residents' experiences are molded by the toxic waste that surrounds them, and their reactions to this reality display the interplay of human and non-human agencies.

In Chapter 4 titled “The Capitalist Spatial Politics of Toxic Waste,” I have connected the idea of spatial politics of environmental toxicity and unequal distribution of environmental risks to investigate the root cause and nature of this contamination, which principally involves the way capitalist corporations plant industries and dump toxic waste in the regions where marginalized communities inhabit. The subjection to toxic waste by the corporate projects that cater the needs of a globalized ruling class not only leads to the “slow violence” of certain communities, but the altered bodies act as material texts and social palimpsests that unfold the stories of political, social, economic, and cultural

negligence and marginalization of certain communities. This chapter has answered my second research question where I have referred to Nixon's concept of "slow violence" and Ray's idea of "the ecological other," to show the ways in which big corporate powers endanger the lives of innocent people due to their negligence and greed. Therefore, when dangerous material agencies (such as toxic waste, chemicals) permeate the bodies; the altered bodies become material texts that tell the stories of social choices, political decisions, and environmental pollution. Through the analysis of the selected novels *Animal's People* and *Gun Island*, I have outlined the struggles of the marginalized groups in their pursuit of environmental justice; thereby implying that while capitalist groups gain the profits of their corporate projects, the environmental problems in the form of illnesses, bodily and environmental toxicity, and other disasters significantly affect those communities who are at the other extreme.

I have cited examples from the communities in the selected texts i.e. *Gun Island*, and *Animal's People* where there are victims of the slow violence caused by the exposure to toxic industrial waste. Ghosh's *Gun Island* explores the impacts of industrial effluents into the rivers surrounding the Sundarbans, where a large population of Dalits and migrant Muslims is settled. Similarly, *Animal's People* is set amidst the enduring ecological destruction caused by a factory explosion in the fictional city Khaufpur, modeled after Bhopal, India. Sinha uncovers the lives of the nameless poor and marginalized victims of human-caused ecological disaster. I have delineated the ways through which the neoliberal capitalist system is accountable for unequal distribution of environmental risks, and how the capitalist spatial politics places the responsibilities of political decisions on the poor and marginalized people. I have also explained how capitalism's rising demand of

production results in the eventual accumulation and dumping of toxic waste and other effluents, and how transnational corporations and the local elites continue their collaboration to not only extract and commodify land, water, and forest resources but even dismantle many ecosystems through dumping of toxic waste materials.

I have situated my argument in the selected novels *Gun Island* and *Animal's People*, arguing that the planting industries and factories in specific areas works upon the capitalist desire of productivity and consumption, thus sanctioning for the toxic waste by-products created along with these goods. However, by setting up the factories and refineries in places where poor or marginalized classes live, as there is less of a social wealth loss, it can be signified that dumping of waste in specific localities or communities is not just a casual act, but is driven by various forms of social, cultural, and political factors like caste biases, religious demonization, normalization of socio-economic crisis, gender marginalization, etc (Dey 4).

The selected novels *Animal's People* and *Gun Island* have rendered this spatial politics of environmental toxicity and the struggle for environment justice of the poor and marginalized communities of Khaufpur and Sundarbans. In *Gun Island*, for example, Ghosh explains how the local elite's industrial expansion and the subsequent unrestrained waste disposal mechanisms have wreaked havoc for the inhabitants of Sundarbans, whose principal source of food, employment, and livelihood are based on the natural resources. The living conditions become worse for the inhabitants because most of the communities that inhabit the Sundarbans are socially and economically deprived, and thereby, not are not adequately prepared to handle the environmental crises at hand (Chakraborty, 2009).

Likewise, the novel *Animal's People* highlights the dehumanization and indifference of Western capitalism in the light of Bhopal disaster. Sinha portrays the struggle for environmental justice of the people of Khaufpur who anticipate the American company to appear before the court. While the people undergo multiple mental and physical disabilities, the company makes no efforts for the compensation of the troubled lives and the livelihoods of the people.

Additionally, it is worth noting that the planting of these industries in certain areas is a systematic and political act because the people inhabiting these areas lack the necessary means to combat the capitalist syndicate. I have used Dey's theorization of 'Garbological Imperialism' where he suggests that the processes of exclusion and discrimination which take place by suffocating the inhabitants and the natural environment to death by deliberately releasing poisonous gases from discarded chemicals, contaminating the natural water bodies, artificially creating eco-friendly spaces, accumulating wastes on natural lands, and then polluting the neighboring environment by burning them.

I have further established that the processes through which the 'body' becomes the site through the mechanisms of marginalization and slow violence of specific communities are enabled. Eventually, the 'disabled body' as put forward by Ray in her book *The Ecological Other*, becomes the ultimate ecological other, structuring the corporeal basis for other expressions of environmental discrimination. The selected texts regard the bodies of human beings and non-humans in the positions of deformation, illness, mobility, and vulnerability; due to their contaminated contacts with toxic waste and chemicals. Through the analysis of relevant examples from the selected texts, I have established that the body

ultimately becomes the principal site through which the processes of environmental injustice can be authorized, and therefore reading the body provides a primary examination of the devastating effects of toxification and unjust political decisions. The bodies (human and non-human) are a part of the environment and any structural decision about the environment impacts the bodies. Therefore, they must be engaged in any analysis concerning environmental justice.

In brief, by considering waste as an actant and collaborator rather than inert and passive; this research has contested the anthropocentric way of thinking that our interplay with the material world has no profound consequences for life in general. This research may create future potentials to resist and fight the throwaway culture which leads to accumulation and multiplication of waste. Moreover, by taking into account the new-materialist insights, this research offers a new way to look at the post-humanist conception of embodiment and material entanglement between human and nonhuman material agencies through toxic waste.

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